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PRINCE KRAFT ZU HOHENLOHE INGELFINGEN

TRANSLATED BY

LIEUT.-COL. N. L. WALFORD, R.A.

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PREFACE

In the original series, as published in Germany, the following *Letters on Infantry* formed the second part of the work, those on Cavalry having been the first, and those on Artillery the last in order. This succession having been inverted in the issue of the translations, we shall not be surprised to find that some matters connected with Artillery in combination with Infantry, which have been fully treated in *Letters on Artillery*, are again, but more cursorily, mentioned in the present volume.

Those who are interested in studying the development of the various Arms will find indubitable proof of the value which is attributed in Germany to the opinions of the Author, if they compare the principles laid down by him in these letters, and in those on Artillery, with those which govern the new Drill Regulations for the Infantry and Artillery of the German Empire.

I beg to again acknowledge the invariable courtesy and kindness which I have received from the Author and from Messrs. Mittler, the Publishers.

N. L. W.

London, 16*th July* 1889.

50,976

CONTENTS

LETTER I

CONCERNING THE GOOD QUALITIES AND THE IMPERFECTIONS OF OUR INFANTRY

German infantry in 1870—Original numerical superiority—Not the case later on—Why they were superior to the French—Yet changes needed—Owing to unnecessary losses—New formations—The habit of war—Tradition and experience—Peace and war . . . . . Pages 1–12

LETTER II

MARCHING AND GYMNASTIC EXERCISES

Character of recruits—System of training of the Guard—Trial and success—Principles of the system—Results of system—One of the principal causes of success in war—Difficulties of instruction of recruits—Difficulties greater in other corps than in the Guard—Necessity for providing posts for retired N.C. officers—Changes of regulations needed 13–28

LETTER III

CONCERNING VARIOUS OTHER POINTS CONNECTED WITH THE TRAINING OF THE INDIVIDUAL SOLDIER

System of instruction in gymnastics—Necessity for care in elementary exercises—Very few men fail altogether—System of inspection—Use of gymnastics in war—Need for self-confidence—Use of bayonet exercise—And of exercises with apparatus—Change of work desirable—Monotony bad—Simplicity also necessary—Handbook needed giving what soldier must learn . 29–42

LETTER X

FORMATIONS FOR ATTACK AND FOR FLANK ATTACKS

Tendency to flank attacks—Reasons for it—Two ways of making them—Flank attacks on the drill-ground—Attack of a locality—St. Privat—Sedan—Le Bourget—Successful with little loss—Villejouan—Attack in the open—Formations . Pages 127–140

LETTER XI

THE ATTACK OVER OPEN AND LEVEL GROUND

Comparative effect of artillery and infantry fire—Best ranges for each—Excitement of action tells more on infantry than on artillery—Attack assisted by artillery—Artillery duel—Advance of the infantry—Artillery push in—St. Privat—Premature bursts—Artillery to keep up its fire to the last—Formations of infantry for attack—Infantry should ask the range from artillery—Examples of the difficulty of judging distances—Infantry not to begin to run too soon—Not to open fire at too long a range—Or will waste ammunition—Supply of ammunition—Advance by rushes.

141–157

LETTER XII

THE ADVANCE BY RUSHES—THE REGULATION OF FIRE—AND THE RENEWAL OF AMMUNITION

The last 550 yards the most difficult of all—Simplest form a charge—Fire at short ranges—Swarm volleys—Difficult not to return a hot fire—Two sights not good—Advance by rushes—Unpractical forms of advance—Small sight to be put up before advancing—Loss in officers—Reinforcements—The final charge—Attack in the absence of artillery Long-range fire—Renewal of ammunition—Fire discipline—Excitement under fire—Renewal of ammunition at short ranges impossible—Rules for conduct of ammunition carts—Risk of explosion small—Use of ammunition carts in peace essential—Regulations of no use—Issue of ammunition must be freed from all formalities—Moment for renewal of ammunition 158–181

LETTER XIII

THE REGIMENT OF INFANTRY

Battalion tactical unit—Duties of officer commanding regiment—A day's work—Candidates for commissions—Regimental duties of commanding officer—Hard work—Proposal to hand over duties to officers commanding battalions—Reasons against this suggestion—The regiment in battle—At Vionville—St. Privat—Advisable to keep the regiment intact—Colonel only does his duty—Training of a regiment—Should consist of tactical and not of parade movements—Against a marked enemy . Pages 182–200

LETTER XIV

BRIGADE EXERCISES

Brigade largest infantry unit—Artillery attached to it when independent—Should therefore take part in brigade exercises—Brigade not to practise parade movements—More useful for the infantry than even for the artillery—Premature bursts—Combined attack by infantry and artillery—Reasons why participation of artillery not specially ordered—Short time available for exercises—Questions as to the regulations—The regiments should be used by wings and not by lines—Flank attacks—Schleswig, 1864—Must be in some degree by surprise—Several lines of approach must be used. 201–220

LETTER XV

THE COMMAND OF A BRIGADE—(*a.* INTERNAL ARRANGEMENTS)

Brigade at the rendezvous—Ordinary principle bad—Pedantry—Example from war—Waste of time and of the strength of the men—Proposed plan—Daily inspection—March of a brigade—The men to be spared as much as possible—Example of the contrary—Never inspect in war, as it tires the men—Importance of the preservation of distances—Marching on one side of the road—Halts for rest Sunstroke—Recommendations—Faulty marching—Boots 221–236

LETTER XVI

THE COMMAND OF A BRIGADE—(*b.* TACTICAL HANDLING)

Position of the commanding officer—Examples of officers leaving their posts—Effect of such a fault—General must either hand over command or remain at his post—Exceptions—Rule does not apply to the leader of a small body—Leaders are always tied down in war—Brigade in action—Endeavour to outflank—Flanking movement must commence at a distance—Difficulty of combining flank and front attacks—Examples of errors—The Rothe-Berg—Flank attacks when on the defensive—Shelter-trenches—Combination of cavalry with infantry—General inaction of the latter—Should take advantage of the action of the former—Infantry *v.* Cavalry—Square given up—There is now time to change front—But the infantry should wheel up, not back—Suakim . Pages 237–259

LETTER XVII

THE SPIRIT OF THE INFANTRY

Enthusiasm of Germany in 1870—But such enthusiasm cannot stand the stress of war—For this the true soldier spirit is needed—Signs of this spirit—Infantry selected as the example—As they suffer most—Excellence of officers—Discipline—Not as of old, by fear—But by confidence—Obedience to orders—The power of "duty"—Need for smartness—Attachment of the men to their officers—Cheerfulness of the men under hardship—Value of praise—Troops who will not be beaten cannot be beaten—Discipline a defence against socialism—Enthusiasm shortlived—No militia can resist an army—The spirit of the offensive—Offence and defence—The Dannewerk—Paris 260–275

INDEX 276

LETTER I

CONCERNING THE GOOD QUALITIES AND THE IMPERFECTIONS OF OUR INFANTRY

On reading of the exploits of the German infantry in the war of 1870-71, one comes to the conclusion, not only that it is the most perfect infantry which has yet been seen, but also that no more perfect infantry can be imagined. What though the Emperor Napoleon said, after the catastrophe of Sedan, that the German successes were due to the Prussian Ulans and the Prussian artillery, while Bazaine expresses himself in the same sense in his *Episodes*. The German cavalry undoubtedly blindfolded the eyes of the enemy, and secured for its own army the most perfect freedom of action. Again the artillery certainly was compelled often, and with success, to assume the *rôle* of its infantry, when our needle-guns were not as yet able to answer at long ranges to the French Chassepôt. But after all the infantry have always done the greater part of the work. Such deeds as the storming of the Geissberg at Weissenburg, of the Rothe-Berg at Spicheren, of Fröschweiler at Wörth, the advance of the infantry almost into the line of the forts at Colombey-

Nouilly, the stubbornness of the infantry against the threefold numerical strength of the enemy at Vionville-Mars la Tour (where they finally retained possession of the field), and the storming of St. Privat, are heroic deeds, of which the honour rests with the infantry alone. This honour is increased tenfold by the fact that the weapon of the German infantry was a poor one compared with that of the French, and had not nearly the same range as the latter. It might indeed be objected that the German Staff had so arranged matters that in all these battles, except at Vionville-Mars la Tour, they had a numerical superiority at the decisive point. But nowhere was this superiority large enough to make up for the triple range of the enemy's weapons. For the French Chassepôt inflicted sensible losses on us at 2000 paces, while the sighting of the needle-gun did not permit of its being used with effect beyond 600 paces. Thus our infantry had to cross a space of 1400 paces, suffering ever increasing loss, before it could defend itself, while in all these battles it assumed the offensive against prepared, and often fortified, positions of the enemy.

But in the later campaigns of the war the Germans very soon ceased to possess this numerical superiority. The army which was set in movement against Châlons, and whose operations ended with the victory of Sedan, was even at that date only 25,000 men stronger than the force (including that of Vinoy), which MacMahon commanded ; and when the investment of Paris had begun, and fresh improvised armies were arising all around, the Germans were as a rule obliged to engage them with a strength

from one-half to one-third of that of the enemy. Thus Prince Frederic Charles in the beginning of January moved with 58,097 infantry and 16,360 horses (having with artillery and pioneers a little over 80,000 combatants) against Chanzy, whose army was estimated at 250,000 men. If the situation of the Germans in France at the beginning of January 1871 were placed as a theoretical problem before a competent military critic, who had no knowledge of the war of 1870-71, but had been informed of the relative numbers of the combatants, and also that the weapon of the French infantry had three times the range of that of the German, he would consider it as simple madness to attempt to continue the siege of Paris, and to hold at bay the enormous relieving armies. But nevertheless this was done, and with the greatest success, and was not madness at all. The victories which the German troops won everywhere forced from our great taciturn strategist the exclamation: "What brave troops! Send them where you will, they are always victorious!" Even if it be taken into consideration that almost all the enemy's troops were newly raised, and had not yet learnt to shoot well, yet we on the other hand know from the experience which we have gained from many experiments and much practice with long-range arms, that at the very long distances, up to 1600 metres or 2000 paces, there is not much difference in the percentage of hits of good and bad shots, so long as the sight is properly raised; trained men cannot reckon on a large percentage at such long ranges. The full development of the shooting of single marksmen does not gain its entire value

until the time of the decisive fight, when they can aim at individual men of the enemy, that is to say, at 450 or 550 yards or less. Now every man of the huge masses of newly-raised infantry of the enemy had a long-range rifle, and with it threw bullets into our ranks; our infantry had need then of almost as much energy to hold their ground, and even to advance, under the long-range fire of these double and triple masses, as if this fire had been delivered by trained marksmen.

The more the details of the actions of this war are studied, the greater will be our admiration of the deeds of our infantry, though this admiration cannot excel that which was felt by those who witnessed them at the time. Thus the question presents itself: "In what did the superiority of our infantry over that of the French consist?" For we cannot with certainty assert that a German is by nature braver than a Frenchman. The peculiarities of character of the two nations certainly differ, but the French have ever been held to be brave men, and their superiority over the Germans in making use of the character of the ground has been always acknowledged in the past. Napoleon I. showed of what grand deeds the French soldier is capable; Sebastopol and Solferino had obtained for the French army of the second half of our century the reputation of invincibility, and all those who in 1870 were engaged against the old French army, before it disappeared from the scene, learnt to feel how well and stoutly they fought.

This question was asked everywhere; and after our last war missions from every army streamed into

Germany, to study our organisation and search for the causes of this superiority.

It would have been most natural, if our infantry had believed itself to be at the zenith of all perfection and had held fixedly to its organisation.

But on the contrary we saw with astonishment that our infantry felt the necessity of improving itself in all directions. They were not contented with demanding an arm, which should possess every technical improvement, but they also attacked the existing regulations, as being no longer appropriate. The most varied proposals were made. Who does not remember the numerous formations for action, some marvellous but most of them very good, which were tried experimentally on the Tempelhof plain near Berlin?

The authorities also shared the opinion as to the necessity for changes in the regulations; a committee was assembled to revise them, and on the 1st of March 1876 appeared a revision of the infantry field-exercise of 1847, as a new edition, containing the changes adopted up to the 1st of March 1876. Wonderful! It is felt necessary, after such unheard-of successes, to change the principles of tactics! Involuntarily the question is asked: "What was wrong? Why these changes? What has happened?"

If we look at the statistical pages of the official account of the war and compare certain figures, we shall find:—"The Guard-Corps lost in the battle of St. Privat 307 officers, 7923 men, and 420 horses, and at Sedan 25 officers, 424 men, and 190 horses; and yet had certainly no smaller share in the success of the latter battle than it had in that of the former.

"The III. army-corps lost in the battle of Vionville-Mars la Tour 310 officers, 6641 men, and 677 horses, while the whole army of Prince Frederic Charles, four army-corps strong (of which the III. was one), and including several cavalry divisions, lost from the 4th to the 31st of January 1871, in almost daily actions, among which was the three days' battle of Le Mans, 229 officers, 3721 men, and 426 horses, about one-half of the loss of the III. corps at Vionville. The X. army-corps, which took an important part in these battles and actions, lost at Vionville-Mars la Tour 202 officers, 4945 men, and 365 horses, or more than the whole losses of the II. army in the whole of the month of January 1871."

I do not wish to fatigue you with figures, or else I am in a position to prove the same fact with reference to every body of troops, namely, that they suffered colossal losses in the first encounters with the enemy, and later on obtained equally important results with smaller proportional loss.

The simple, incontestable, and logical conclusion is, that some faults must have been committed in the earlier actions, which led to unnecessary losses, and which were at a later date avoided, after that the consequences of them had been painfully realised. These faults were due to no particular individuals, and entail no reproach to any one person, for they were universal and common to all; they were present in the system and in the principles followed; thence sprang after the war the universal feeling of the need for a change in these principles and also the numerous proposals made as to the form of the change.

It is impossible to deny that we were surprised by

the long range of the Chassepôt, and at first everywhere, without foreboding, marched in close columns into the zone of this fire, in a real belief that we had plenty of time before we need break up into smaller units. This we naturally did not do in the next action. But this was not the only cause of our heavy losses in the earlier combats, losses which we were able to lessen in the later battles.

We, in addition, adopted formations for fighting in which our loss was less, leaving out of the question the fact that we avoided, by reason of the universal and general familiarity with war many losses which novices must necessarily incur.

After the first great battles, with their excessive losses, new formations for fight were adopted and practised. These, based as they were on sad experience, underwent practical proof. I remember a very remarkable example of this. During an attack on a village, at a late period of the war, two regiments seized that part of the edge of the village which had been allotted to them almost without loss, while two others again suffered enormous loss. The reason was that the two last mentioned regiments were commanded by officers who had been wounded at St. Privat, and having rejoined the force only on the day before this action, had not yet taken any part in the practice of the new formations. They fought in the old style, as they had been taught, in company columns, and again suffered colossal losses. Both these brave men were among the killed.

But the habit of war, the being *aguerri*, also diminishes the losses. Any one who does not know practically what this means imagines (at least, this

was my case), that the habit of war is synonymous with hardening, and with indifference to all the toils and dangers of war. It is altogether the contrary! Men who, living in a certain amount of ease, comfort, and effeminacy, have arrived at the age of 20, 30, 40 or 50 years, cannot in a few months so harden themselves that they can give all this up and expose themselves to cold, etc., without danger to their health and life. The habit of war consists in learning to procure for oneself, without increasing one's baggage to a degree which could not be permitted, that which is absolutely necessary, considering one's rank, station, and habit of life, that is to say, necessities which have grown to be so in one's earlier days; in guarding oneself as much as possible from the effects of bad weather; and in avoiding in action all loss which is not absolutely called for by the object of the fight or by honour. This is even a duty. For the man who allows himself to be killed out of carelessness or bravado, when his death is unnecessary, does a wrong to his fatherland, which he thus uselessly deprives of a soldier.

Again we find, if we carefully compare the action of our infantry at the beginning of, and at the later periods of, the campaign, certain customs and habits which led to great loss and which were later on abandoned. These habits and customs, which are the result of a long peace, will always take root again, if attention be not constantly drawn to the fact that on active service such things cannot be.

It is well worth the trouble to search out, down to the smallest detail, what constituted these faults, which were then committed and were later on avoided,

and what were the good qualities of our infantry, which, in spite of these faults and in spite of the enormously superior arm of the enemy, secured such grand results.

In making this search I shall not be able to refrain from here and there expressing a wish that this or the other might be improved. You will perhaps find it presumptuous that I, a gunner by profession, should criticise so excellent an infantry and dare to offer it advice. But criticism of, and advice to, infantry has been during seven years my duty as commanding a division. Moreover in the first year of my command I industriously attended the recruits' drill; I was annually present at all inspections of recruits of an entire brigade, at the company training of at least three regiments, and at the battalion training of the whole division. I can thus, assisted by what I have seen in war (and including battles and sieges I have been on 60 different days under the fire of the enemy), form a confident judgment with regard to infantry, and one the more impartial and the more unbiassed that it cannot be clouded by old habits. Far be it from me to undervalue tradition. Tradition is founded on old experiences, but he who follows the tradition knows nothing of these experiences. The great mass of people continue to do what they have always done, and ordinary men follow gladly the dear track of habit. Since, however, the experiences have been forgotten which formed the basis for the tradition which every one follows, he who breaks with a tradition is in danger of destroying one based on good grounds, and may later on have to renew the

old experiences in some unpleasant manner, and then to recall the old tradition, if there be yet time. For many things it will then be too late, especially for such as have to do with discipline. And when the discipline of an infantry is slackened, then, alas! good-bye to all great successes! I can therefore only recognise the deep wisdom with which those in high authority interfere but very slowly and gradually with whatever is rendered sacred by custom.

But there exist traditions which arise from the experiences of a time when we fought with quite other tactics. Line-tactics, in which soldiers were used only as machines, in which the infantryman was only food for powder, in which a private was more afraid of a blow with a stick than he was of a bullet, such tactics must beget customs and habits which can in these days bear no good fruit. And yet, because that time was full of glory, we still have, at least in a part of the army, not perhaps regulations, but traditions, with which we might easily dispense.

Again traditions grow out of the conditions which obtain in peace, when to work up for inspections and manœuvres is regarded as the supreme object of effort. This ought not to be, but so it is, and finds its origin deep in human nature. The man who is the very best soldier in the field, if in peace he is constantly getting into trouble, must arouse in his superiors a suspicion that he has fallen from his former efficiency, and is no longer what he was. He also must therefore, if he wishes to continue to serve, work up for inspection, etc. Such traditions we ought to fight against with all our might; we must not allow them to spring up, and when we come across them must

throw them utterly aside, so that at inspections we may demand before all other things only that which is truly useful; but that must be rigid, exact,—as rigid and exact as possible. It is also the duty of inspectors to so direct their inspections that it may be impossible merely to "work up" for them.

I will now relate to you, as an example, one single tradition, which I came across when I commanded a regiment. I discovered, when I saw the recruits drilling in ragged clothing, that the batteries drilled their recruits in the winter in tunics and trousers which had been condemned and had been handed over to them as material for repairs. I forbade this by a regimental order. A captain of a battery, who had been long on the most intimate terms with me, said to me confidentially in private: "You have given me an order which I shall oppose; if I obey it and the other captains do not, I shall wear out my clothing and they will keep theirs new; then at the inspection I shall be blamed and they will be praised. We shall all therefore, when you are not there to see, drill our recruits in condemned clothing." "What will you do," said I, "if I have the clothing unpicked?" "Then we shall tell the company tailors to make them up again." "But suppose," said I, "that I give you only half trousers and half tunics?" After thinking a moment he said, "We should be done there."

This was done. From that time when the batteries wanted to condemn 10 tunics and 10 pairs of trousers as material for repairs, they had to return these articles into store, and then received from the quartermaster, one 20 right legs of trousers and 20

right halves of tunics, another the corresponding left arms and legs. The appearance of the regiment was thus much improved.

You will perhaps laugh at such details. But the grandest and the most beautiful building is composed of comparatively small and unimportant stones, and falls altogether to the ground, if these little stones are not worked and joined with proper care.

In my proposed examination into the good qualities and the failings of our infantry, I shall begin quite from the bottom, from the very smallest stones. If this is likely to weary you, then withdraw your request that I should write to you on my opinion of the infantry, and for my part I will cease to write.

LETTER II

MARCHING AND GYMNASTIC EXERCISES

As you say that you will not be wearied by my examination into details, I will continue my letters. But in order not to try your patience too much at once, I will begin by telling you a tale of an episode in my life. In the summer of 1864 I received command of a regiment. In the autumn my first recruits arrived. The whole barracks were soon full of such figures as would make you die of laughter, such that the most exaggerated caricatures of the[1] *Fliegende Blätter* would give but a faint idea of them. The awkward fellows, whose neglected carriage made them look like a set of ill-made images, tried hard but in vain to stand straight; some broad-shouldered yokels still wore their peasants' clothes, while tunics to fit them were being made, and tumbled about as they fruitlessly tried to master the balance step; some with exceptionally large heads, which none of the forage caps in store would fit, still wore, as the cap-maker had not finished his task, the shabby tall hats in which they arrived; these occasionally fell off and rolled across the barrack square; the whole motley company blun-

[1] The Bavarian *Punch*.—*N. L. W.*

dered together over their positions, facings, and wheelings.

In the same barracks were quartered two companies of infantry of the Alexander regiment of the Guard. During the first week after the arrival of the recruits not a single man of this regiment was to be seen in the barrack square. At the end of the week I saw the first of the infantry recruits, and then only a very small squad, drilling in the square. They already marched so well, that I thought they were a detachment of the men of the previous year. But on asking Captain von W., who commanded the company, he told me that they were recruits. I expressed my astonishment. He told me quite openly that he was no less astonished that my batteries began to drill their recruits on the very first day, before even they had got their clothing; he allowed no man to begin to drill, unless he could drill. This seemed to me almost as if no one was allowed to go into the water before he could swim. But the result spoke so strongly in favour of Captain von W.'s plan, that at my request he informed me as to his principle.

He explained to me that every man of the lower classes uses only one set of muscles in his ordinary work; the shoemaker uses one set, the tailor another, the woodcutter another, and the agricultural labourer another; the muscles which are least used tend to grow feeble from disuse, and this is why newly joined recruits (in nine cases out of ten) find it hard, and almost impossible, either to stand or to walk straight. They may be compelled to do so, but not without pain, which not unfrequently increases into cramp

of the muscles, and this, in combination with all the new and unaccustomed things which the recruit finds in his new position, in combination also with home-sickness, leads to despondency and not rarely to insubordination, crime, and even suicide. For this reason it has become a tradition in the infantry of the Guard to instruct the recruits first of all in every kind of gymnastic exercises, which are carried on in canvas suits in the barrack room, and which advance very gradually and without effort from the easy to the more difficult, until they at length have command over all their muscles. Since these exercises are tiring, they are not carried on for too long together, but are varied by instruction as to their new life, by showing them their arms, etc., and especially by encouraging them to ask questions, and awakening their curiosity, in order that they may gain confidence in their new position and in their superiors. The results of these exercises are soon evident in the development of the neglected muscles, which shows itself by a natural and more upright bearing and by a regular step. When this result has been obtained, they then for the first time receive their uniform, which the tailor has been fitting in the meanwhile, and commence their drill. Each man is, according to his progress, posted from time to time to the drill-squad.

I asked him whether the infantry of the Guard had any written instructions with regard to this practice, which he could lend me. The Captain answered that all this was simply a tradition which had gradually grown up, but that he would ask the officer who was in charge of his recruits to write it

out for me; it would be very excellent practice for him, and I should have it after he had himself corrected it. He did so; but since there were many things in it peculiar to the infantry, I asked two of the Captains of my batteries to work it out into a regulation fitted for the artillery. I found that these two officers agreed with me as to its value, but they were in the minority, for most of the officers preferred to go on in the old style, saying that this was all very well for the infantry, but that artillery had no time for such trifles.

After this system had been worked out, I made it a regulation for my regiment. At the next spring foot parade, which then always took place, the King looked at the regiment with his eagle eye, which took everything in, and said: "At last I see men well set up; I have always been told that the artillery could not pay attention to this, on account of their special work, but I now see that it can very well be done." The march of the men was also freer and unconstrained than it had been before. And with all that the soldiers had been less tormented than in previous years.

This success encouraged me to study yet more closely, so far as my special duty with the artillery permitted, the administration of the detail of training, as it has developed with time among the infantry of the Guard. I found such care for the education, training, instruction, and health of each individual man as could in few families be improved, while it was far greater than any man of the lower classes of the people would ever find in his own family. The maintenance of discipline was brought into

careful connection with instruction in drill, and all exercises, including the gymnastics, were used to increase both health and discipline, while the natural tendencies of each individual man were most conscientiously taken into account.

In this manner the recruit quickly learns to subordinate his muscles to his will. At the same time he learns also to gradually submit his will to the word of command. In order to secure this it is only necessary to direct that the exercises, even the easiest, shall not be carried out except by the word of command of the instructor. The man being thus accustomed at the word : " Arms to the rear !" " Arms to the front !" " Lift your heels !" " Bend your knees !" etc., to make the required movements, the necessary muscles act later on unconsciously at the word of command, just as the human will compels the members to move, though the man himself does not know that his will first affects the brain, and that from this the order travels by a roundabout way through the nerves to the muscles. The greatest care must be taken that the recruit is not roughly spoken to or frightened. If the instructors (officers or N.C. officers) are gentle, the recruit will soon gain confidence. Living in barracks of which the sanitation is medically cared for, and in cleanliness, such as is quite unusual in most lower class families, the recruit has, together with ample and good food, sufficient exercise of a nature to develop his body, a regular life, and plenty of sleep ; in short, he enjoys such entire welfare, that he feels how fortunate is his lot, and blindly obeys whatever order his superior may give. Thus is developed the electrifying power of

the word of command. That which in former days was begotten of the fear of the stick, is now born of trust, with this difference that its effect is more lasting. Since in former times when the fear of the stick vanished, discipline vanished also. Desertions are more rare in these days.

Especial care is necessary with regard to the connection between the exercises and disciplinary punishment. No recruit, up to the day when he joins the company for duty, that is to say, until he is considered to have learnt his elementary drills, should ever be punished for faults at drill. During the ten or twelve weeks of the recruits' drill no recruit, however awkward he may be, should ever be sent to extra drill or to punishment drill; for the day's work of the recruit is so measured out, that he has no spare time, his hours being divided between drills, exercises, instruction, sleep, eating, etc., as is best for the man's health. More drill would so tire him that his health might suffer in consequence. If there are men (and there always are) who join in such a low condition of mental and bodily development, that they cannot keep up with the others, then the more advanced may be dismissed from their drill earlier than the allotted time. The Captain is generally called upon for an explanation whenever he punishes a recruit during the period of his instruction, whether it be with a minor punishment or with arrest. Such a punishment is not generally inflicted for a failure at drill or for awkwardness, since orders are given that recruits are to be treated with forbearance and patience, even when there is reason to believe that there is some want of will to do right.

A recruit is not punished unless there is absolute proof that the fault was intentionally committed, or in the case of such faults as are not allowed by law to go unpunished. The characters of the men vary very much, and there certainly are some who are ill-conditioned, who resist every order and all kinds of obedience, and find pleasure in crime and disorder. These are not, however, so numerous as is believed. But if it be once taken for granted that want of will exists, when in truth it is only want of intelligence and awkwardness, true ill-will is easily produced. It is thus better to have too much patience rather than too little.

When certain companies have acquired especial skill in the systematic training of their men, and when they have had luck in the recruits posted to them, so that they by chance have not received a single worthless individual, it has happened that they have in this manner created an excellent discipline, and have not found it necessary to give the punishment of arrest during a year or eighteen months. And these companies are moreover the best in drill, discipline, and order.

This systematic training of the infantry soldier, and the care given to each individual man, even in his musketry course and in his work in the open country after he has finished his drill as a recruit, was one of the principal causes of our grand success in the last great war. The soldier endured all hardships, not from fear of punishment, but through confidence in his officers; he looked upon his toil as something unavoidable, as his fate, for he knew that if it had been possible he would have been

spared it; he followed his officer in battle out of sheer trust; he was not discouraged even when he found the enemy in superior strength; he never suffered from panic, for he knew the value of mutual support and held to it, not because he was obliged, but from love for his regiment, in which everything had always gone well with him.

At a time when the soldier is supplied with an accurate firearm, and when the well-aimed fire of individual men must have more result than ill-aimed volleys; when the soldier, in order to fire well and with good effect, must lie comfortably on the ground instead of standing in a close crowded line; when he is, moreover, no longer a mere portion of a stiff machine, since each man can use his weapon with intelligence; when the infantry have ceased to be only food for powder, and have become a combination of single units working independently, at such a time the careful training of the individual soldier must decide the issue of battle.

But the task which year by year falls to the instructors of recruits is a difficult one. The greater proportion of the recruits come to the regiment raw in every respect, bodily, morally, and mentally; no inconsiderable number of them have already been in prison. I have said above that the recruit is as a rule neither good nor bad; the greater part of our nation is, at the age of 20 years, morally and intellectually, at the standard of a child of educated parents at 10 years old. There are even some individuals who are below this. I have had recruits who found great difficulty in pronouncing the number 34. I asked one of these to count.

His scale of numbers went up to 11; he had heard of 13 and 17, but he did not know what they meant. This was a German; the Slavs of our Fatherland are still more difficult to educate, since they do not understand German. They are further accustomed to an almost incredible amount of roughness in their intercourse with their parents and associates. I remember a recruit who could only speak Polish, of whom I as a lieutenant had to undertake the training, and who did not understand a single word that I said, and stood staring vacantly before him. I told another of the recruits who could speak German and Polish, to translate what I was saying. This fellow went up to him and gave him at once a tremendous box on the ears. When I reproved him for this, he met me with the startling argument: "Oh, you must let me do it, Lieutenant, he understands much better now." The box on the ear in their society answered the same purpose as "Do you hear?" does in Berlin, or as the touch on the shoulder which many men use to draw attention to their words. What patience is required to make such men understand all that belongs to their duty in the field, to order, and to discipline, without even once knocking them down, he only can know whose forbearance has been thus put to a practical test. If sometimes an excitable and eager N.C. officer or lieutenant loses his patience, and has to answer before an inexorable court-martial for some blow given by him, looking at things from the point of view of human nature one can only pity him. When I therefore read, either in the Press, or in the reports of the Landtag or Reichstag, similar isolated cases

angrily quoted as examples of a universal and overbearing military despotism, I cannot help wishing that each of those who so speak, write or vote, might be compelled by law to serve first for twelve years as an officer or N.C. officer.

From the moral point of view also many recruits are as backward as a child of 10 years old. Among many of them no trace can be found of the feeling of duty, of religious conscience, of patriotism or of honour, while there is a proportionately small percentage of them who have any idea of good or evil. The great mass only know good from evil from the fact that the latter is punished. "I will not do this or that, because if I do I shall be put in prison or in the House of Correction." Many recruits hear first of duty, honour, and patriotism from their instructor after they have joined the army. Many of them, even from parts of the country where German is spoken, know nothing of the history of their Fatherland. There is a sort of figure of speech which we use when some one has said something which everybody knows: "Yes, old Fritz is dead." By means of this I discovered that many of my men had never heard of Frederic the Great. I asked one of them once and he answered: "Yes, I heard that he had died yesterday."

It is the more difficult to train such men since they are mixed with others educated to a higher moral and mental standard, and these more advanced and cultured persons must be trained in quite another manner. It is only wonderful that the patience of the instructor of recruits does not fail him under this labour of Sisyphus. The brilliant saying of one of

our most talented men: "Our victories were won by the German schoolmaster," is only partially true. They might more justly be said to have been won by our N.C. officers; but *they* are instructed by their officer, and he by his superiors, while the most advanced among cultured men are trained by professors and by learned soldiers. When on the 29th January 1871 the forts of Paris were surrendered to us, I happened to be going on duty from Versailles to St. Denis. I followed the Seine from St. Cloud to Argenteuil. On both sides of the road the paths were covered with groups of soldiers drilling singly and being practised in positions, facings, manual exercise, etc. They were men of the reserve battalions, who had been sent to the front scarcely trained; as soon as the infantry found time they set to work to complete their instruction. I and the officer with me could not help laughing, but it was with joy and pride, for only in the Prussian army would such things be possible. Of this we were further convinced by the remarks of the French inhabitants, who had come from both banks of the Seine, from Paris and the villages, and were astonished at these doings. They said: "Look at them, they are drilling still after their victory. If our fellows had won, they would have spent the whole day in drinking and amusing themselves. It is clear enough that we have no chance with them."

When I say that the training in detail of each individual man was one of the principal reasons why our infantry was victorious, I do not by any means maintain that even this might not be improved (for

what human institution is altogether perfect), nor that this manner of training is carried out as well and wisely in every infantry regiment of the German army as it is in the infantry of the Guard at Berlin. When I received the command of a division of infantry in the provinces I found that the principles which I have stated above were by no means universally applied. The gymnastic exercises were practised more for themselves, because they were laid down, than as a means of instruction, while the class of recruits was more difficult to manage, and the staff of instructors was not so skilled. The big and already well-shaped men who are sent to the Guard are naturally more easily trained than the many rather unshapely recruits who go to the infantry of the line. Men morally perverted, who have already committed crimes for which they are outside the pale of society, are never sent to the Guard, and thus the infantry of the line has to deal with thieves and other criminals. Moreover the N.C. staff of the infantry of the line is not from its social position so well educated as is that of the Guard, since the attraction to the capital of the German Empire is naturally stronger than that to some small garrison, in which there is no opportunity of acquiring a connection which may be of use for later advancement. But how desirable it is that the N.C. officer should be better educated than the recruits will be evident to every one who realises what patience, as has been shown above, he must exercise towards the private soldier, and how superior he must feel himself to him, not to lose his temper when he comes across great awkwardness, taking care not

to mistake the latter for ill-will, until he has made sure that ill-will does truly lie behind it, which is indeed often the case.

It is therefore of the greatest importance that the career of a N.C. officer should be made tempting to the more educated classes. Much has been done in that direction already ; their life in the regiment has been made far more pleasant. But the most important point, to my mind, is that the State shall buy up the administration of all lines of railway. When all the railways, as were the post-houses, are administered by the State, no one except soldiers recommended for civil appointments will obtain employment on the railways, posts, and telegraphs. Then all those who wish to embrace such a career, and have the necessary education, will be compelled to serve for the requisite time, and the N.C. officers will thus be supplied by a class of men so well educated, that it will be possible to promote them quicker, while perhaps the qualifying time for civil employment might be reduced to 10 years, by which again the supply of well-educated men for N.C. officers will be increased.

I cannot here refrain from mentioning another matter. The practice in instruction which a N.C. officer has as an instructor of recruits is the very best preparation for the calling of civil schoolmaster. But never yet has a N.C. officer been made a schoolmaster ; on the contrary, the candidates for such appointments have their term of service shortened. If the civil schoolmasters were selected from discharged N.C. officers only, a still larger number of educated men would select that career, while the

teachers of youth, and the youth itself, would gain a greater sense of order, right, and law.

Do not condemn me, on account of my proposals, as a reactionary, who wishes to enslave the whole country under the military power of the soldiery. Having an army organisation, which is rightly called *The People in Arms*, we ought during their childhood to train this people, who are to bear arms, to a sense of order and law, so that they may not some day, sword in hand, threaten the whole social order with destruction.

After this digression from my narrative, I will add that in the division of which I took over the command, there were great difficulties with regard to language, since more than half of the recruits were Poles by birth, and most of these did not understand German. The sense of right and law was even less developed among them than among the lower classes of Prussia. Cases not seldom occurred, where men before they entered the service had committed serious crimes, such as arson, or where they falsely accused themselves of similar crimes with the sole and only object of being transferred to a punishment company, and of being discharged from the army, so that they might not in case of war run the chance of being shot.

For all these reasons the system of individual instruction did not take such root in these regiments as in the infantry of the Guard. I did my best to introduce it gradually; *gradually*, since a matter which called for the zealous help and assistance of each individual could not be arranged all at once by a mere order. Indeed an order stood in the way of

any such action, for by regulation the direction of the detail of the training of the men is the especial charge of the officers commanding regiments. In them I found willing assistants; good results soon showed themselves. Love of praise and emulation between the different regiments did the rest. Crime, punishments, want of discipline and desertions visibly diminished, and the men had in a few years a freedom and elegance of step, which compared well with the painfully stiff pace of the former soldiers.

In such a highly educated and willing body as is the Prussian corps of officers it is only necessary to suggest anything, and the efforts of all the junior officers will certainly help most willingly to complete it and bring it to perfection. So I found in this case. The infantry of the Guard had already abolished the balance step, my officers went further, and replaced, as a preparation to marching, the slow march by gymnastic exercises and worked back to the former from the quick march, just as in the case of a remount the short trot and the medium trot are developed from the natural pace. The success was most visible. Up to that time it had been found very difficult to teach the small Silesian men to take such long steps as those required by the regulations, namely, 100 to 80 metres. It was now found that the recruits could at the inspections in the barrack square march 80 metres without difficulty in from 82 to 90 paces; one company had even taught its recruits to step metres. The men, being accustomed to such long paces, had no difficulty at a later date carrying their packs and moving over uneven ground, in marching with the regulation pace of four-fifths

of a metre, and developed a power of marching which often on the occasion of the manœuvres astonished both the superior officers and the spectators. It is moreover natural that the slow march with the balance step should tend to shorten a man's stride, instead of making the recruit stretch his legs, for when he has to stand for a moment on one foot with the other extended in front of him, he is obliged to throw his weight on the rear foot, and this shortens the pace when the advanced foot comes to the ground. Again the slow march, with the balance step, is an unnatural movement, which causes pain to the recruit in proportion as his muscles are wanting in pliancy. It must be quite wrong to begin with the most difficult practice; while, when a man has once learnt to march in quick time, the other paces are of no use. In former days these two kinds of marching were practised for choice by such instructors of recruits as had nothing to think of, who looked stupidly to their front, mechanically and slowly repeating: "21-22." Thus it happened that a tortured, though willing, recruit, driven to despair by the pain in his cramped muscles, would throw his rifle on the ground or at his instructor's head, and then had to be punished by law for such insubordination.

I am afraid that I have already annoyed you too long with these petty details! and I will not try your patience any further to-day, since I propose in my next letter to examine in the same manner into some other points connected with instruction, unless indeed you write to tell me that you are weary of it all.

LETTER III

CONCERNING VARIOUS OTHER POINTS CONNECTED WITH THE TRAINING OF THE INDIVIDUAL SOLDIER

SINCE you encourage me to continue my remarks on the details of instruction, I will run the risk of being wearisome, and pass from the gymnastic exercises to applied gymnastics, *i.e.* exercises with apparatus and the bayonet exercises. Though in these practices the infantry naturally attach special importance to matters which are useful to them on service, such as climbing, jumping over ditches and the combat with the *arme blanche*, yet they do not lose sight of the necessity of a healthy development of all the muscles, and each man derives a lasting benefit from them in the progressive strengthening of his body.

But no instructor of gymnastics escapes from one danger, namely, that of preferring to teach very advanced practices to some peculiarly skilful pupils, rather than to endeavour to push on the most awkward and the most clumsy, and to improve them sufficiently that they may come up to every requirement which can be called for in a good infantry soldier. It is true that at inspections the remarkable

performances of some individuals attract attention and gain credit for the instructor, while exercises of ordinary mediocrity pass unobserved. It is true that the division into three classes—gymnastics, jumping, and bayonet—are intended, inasmuch as men of the same calibre are placed together, to prevent this danger, but the Captain also, who instructs the whole, is easily tempted to take the greatest interest in the exercises of the first of these classes, and to take only a step-motherly care of the others. Many captains even take particular pride in showing a very numerous first class, in which case the performances of individuals in this class will be of very various degrees of excellence.

If the lists of the men in hospital be examined, you will find that a company commanded by such a captain has a very large number of men admitted for accidents at gymnastics. For a man who is passed into a higher class, before he has been properly instructed in the lower, will attempt things beyond his power; for instance, he will fail to jump high enough and will strike the jumping horse, or he will come to the ground awkwardly and sprain his ankle, and so on.

On the other hand, I have seen some companies, in which even the most awkward and clumsy men did very satisfactory practice, while but few (two to six men) figured in the first class, and these were soldiers who had already been skilled gymnasts when they joined the regiment. I remember one company, of which all the men climbed out of the windows of the barracks, ran a certain distance over all kinds of obstacles, and finally climbed in again at the

windows. In this company there had been no single accident at gymnastics during the whole year, and the men looked in good condition, red-cheeked and jolly. It is true that the Captain was an intimate friend of, and had served in the same garrison with the originator (Stocken) of our military gymnastics, and had learnt from him to accustom the muscles first to the easier exercises, and not to go on to the more difficult, until they had gained the necessary suppleness and elasticity. When this is not seen to, it may very well happen that the more difficult practices are clumsily done, while the man hurts himself in doing them. It cannot be too distinctly laid down that each man should be able to do the most elementary and easiest practices with the most absolute excellence and neatness. He who cannot, for example, jump standing with due elasticity, rising off his toes and coming down on his toes with a slight bend of the knees, though he may have enormous strength, so that he can jump across or lengthways over the horse, will nevertheless always run a risk of landing on his heels and of either jarring his spine or spraining his ankle. If gymnastics are taught and carried out in every detail no accident can ever happen. But if they are unintelligently carried on, accidents will happen, while the men will lose their confidence and will become nervous and disinclined for them. But no man ought ever to be brought into this condition. The more timid he is by nature, the longer must he be allowed to gain confidence by doing the easier exercises, and the more gradually must he be passed on to the more difficult. I have only met with one

man in the whole of my service who never could get over his natural nervousness. Before he had been drawn as a recruit, his father, a Jew tradesman of my native town, whom I had known from childhood, came to me and urgently begged that his son might be exempted from serving, as he had no courage and would only bring disgrace upon the regiment. As the law did not recognise this want as a reason for exemption, I could not listen to his prayer. At the gymnastic inspection the company finished by running a course over the regulation obstacles, of which the final one was a ditch, which formed a branch of the river Neisse. Young Hopeful came at it last. When he got to the take-off he gave a yell of anguish, threw his rifle with its fixed bayonet into the water, jumped on all fours and fell like a frog into the ditch, in which he stood covered with slime up to the hips. Amid a roar of laughter from the whole company he waded to the other side. But such an exhibition as this is very rare. It is safe to say that every man who is sound in wind and limb can practise all that is needed for an infantry soldier.

The superior officer who inspects in gymnastics can do very much by the manner in which he inspects. The time that is at the disposal of the inspectors is, as a rule, very short, since they prefer to judge of the different grades of instruction of various bodies of troops on nearly consecutive days, in order that they may have a correct standard of comparison; besides their journeys from one garrison to another take up some little time. A detailed inspection of the drill and musketry gener-

ally occupy the morning, and after as hasty a meal as possible the tired mind in the tired body turns its attention to the gymnastics. Can we wonder if the inspector then prefers to see the remarkable and more entertaining exercises of the first gymnastic and fencing classes rather than weary himself with the elementary work of the lower classes? But by this the inspector does harm. That which is inspected will be practised, and this is the more true as the period of peace grows longer; this is in the army the natural consequence of military obedience, and if the superior officer inspects only the first gymnastic classes, the regiment will neglect the instruction of the others. But the training of the latter is the most important, since it is most necessary to teach every one all that is needful. Such dexterity as goes beyond this is only of value as an incitement, an example, which may rouse less well-endowed men and awaken their desire of honour, and by no means with the object of exhibiting magnificent gymnastic performances before the enemy.

But of what use are gymnastics in war? Why should the soldier learn the bayonet exercise when the fire of rifles is decisive? Such questions appear on paper to be reasonable. Yes; even a practical infantry officer of high rank, whose authority no one who knew him would dispute, said to me once, as he watched the men exercising with bayonets and padded jackets: "That is all modern rubbish, in which so much time is spent, that at last the men do not know how to load their rifles in action." He was right. For if the men had not sufficient

time to learn how to use their arms properly, because they did so much gymnastics, it would be better to do none and not even to learn how to fight with the bayonet. What sportsman has not in the excitement of shooting made a mistake of some kind by forgetting to cock his gun or to withdraw the safety-bolt, etc., owing to which the hare has escaped? It is only when he has had such practice in shooting that he carries out mechanically all the needful manipulation without thinking of it, that he can be sure of making no such mistakes. Just so the infantry soldier must be so practised with his arm, that he makes all the necessary motions correctly, by instinct and mechanically, even when his nerves are disturbed by the heat of battle, personal danger, etc. If the practice of gymnastics prevented sufficient time being given to such things, they would be an evil. When I noticed the number of miss-fires on the part of the enemy on the field of battle, when I found muzzle-loading rifles loaded with ten successive cartridges, of which the first was put in hind before (a proof that the soldier had not noticed that the first shot had missed fire, and had therefore kept on putting in fresh cartridges one over the other), then I saw how right the above-mentioned infantry officer was, when he said that the firing exercise should be so well practised that the soldier, even in battle, could make no mistake.

We know also that Napoleon I., who of all great captains had the greatest experience of war, laid down as a principle: "The firearm is everything, the rest nothing." The value of this maxim must

increase with the improvement of the firearm. But we do not teach gymnastics in order to show our jumping or activity before the enemy, but in order to strengthen the power of the muscles of the men. With strength grows self-confidence, with self-confidence courage. He who is skilled, knows it; he who knows it, presses on. We do not teach the bayonet exercise in order that the infantry may rush in on arms of precision with the bayonet alone, as the Austrians did in 1864 with great loss, and in 1866 to their ruin, but we wish to teach it in order that the soldier may not fear a fight with the bayonet, may feel himself secure so long as he has his bayonet on his rifle, and may hold the certainty of victory in his hand. Goltz, in his work *The Nation in Arms*, has brought forward the moral superiority of the offensive in such an overwhelming manner, that nothing can be added to what he has said. But the moral effect that is produced by the offensive on a large scale, is in small actions the result of a determination to attack with the bayonet. He who determines so to attack gains half the victory, since the enemy seldom waits to receive the assault. But he who has not made up his mind to come at last to the bayonet can never win, for he can have no serious intention to assault. He who does not know how to use his bayonet will certainly not be determined to finally attack with it, and thus he will never make a serious attack.

However true Napoleon's maxim may be, and though bayonet fights are rare, yet there were some in the last war. Is a man in this case to use his rifle as a club? Ought he to be exposed to the

chance of being unarmed as soon as he has knocked over one enemy, for certainly as a rule the stock will break if he clubs his rifle? After the storming of the forts at Düppel many rifles were found to be without stocks. When Prince Frederic Charles asked a soldier why he used his butt instead of his bayonet, the man answered: "I don't know; when you get your dander up the thing turns round in your hand of itself." This means that, if the man is more accustomed to strike than to point, he will use his rifle as a club, as soon as excitement overcomes him and nature gets the upper hand. Therefore it is necessary to make the soldier so accustomed to the bayonet by constant practice in pointing with that weapon, that it becomes natural to him to point, and that he will point, when he is excited, instead of hammering.

When I received my elementary instruction in military knowledge I was taught that a Frenchman could by nature beat a German in a bayonet fight. Involuntarily I formed the idea that in that case the German would be wise to avoid fighting with the bayonet against a Frenchman. Some very sound old officers went so far as to lay down, when arms of precision were introduced, the principle that it was right, when threatened with a bayonet charge, to retire firing from one position to another. Now that I have seen a few battles and many engagements, I know, that from such action no other effect can be expected than the loss of the battle.

The principle which was laid down by the most trusted Austrian infantry tacticians that the only antidote to arms of precision was the bayonet, cost

the brave Austrian infantry much blood in 1864, and became quite untenable in 1866. He who should endeavour, without firing a shot, to cross the whole of the zone which in these days is swept by infantry fire, would certainly remain a corpse in front of the enemy's line. But he who, on the other hand, does not make up his mind at the beginning of an action to go in at the close of the fire-fight, if the enemy will not give way, until he can see the whites of the eyes of the foe, has no intention of making a real attack and will not be victorious. Yes; make the intention to charge home apparent, or it will be better not to go into action at all. That sort of thing would remind one of those beautiful strategical manœuvres which concealed the appearance of any intention to give battle, and therefore failed dismally.

I think that I have said enough concerning the necessity of the bayonet exercises for infantry. I do not want every soldier to become a skilled fighter with the bayonet (that we shall never get), but each man should be able with ease to give a good strong point, when a point is needed, and should have obtained confidence that when he does so he will hit his enemy and kill him. The spiritless "clip-clap" which we sometimes hear for half an hour together, by the word of command of some stupid N.C. officers, is sheer waste of time, and is very like that stage-fight, of which an old experienced N.C. officer said to his pupils: "I give you my word of honour, you wouldn't pierce a sheet of wet blotting-paper."

The other practical exercises in gymnastics (the practices with apparatus) are only of use to give a

man confidence in himself. Even though infantry have learnt to jump over wide ditches or to climb walls, yet this will certainly not decide the victory, since it is quite a different thing to jump ditches and climb walls in drill order and in the barrack square, and to do so after a forced march or a trying bivouac, with a pack on their backs. Moreover troops which are massed to give the decisive blow will not find such obstacles all along their front. But the soldier who knows well that he can overcome all obstacles advances with quite a different feeling of resolution to him whose inward voice cries painfully to him: "Can I get over that ditch, or that hedge, etc?" Besides he who is practised in systematic gymnastics will jump even the smallest ditch with greater ease than he who has not learnt to jump, and who runs a constant risk of spraining his ankle or straining a sinew. This difference in efficiency becomes more noticeable when the men are tired or are carrying their packs.

At the storming of Le Bourget, on the 30th of October 1870, during the fight at the church, our grenadiers pressed in through the windows, and jumped twice the height of a man down into the nave. Troops who had not learnt to jump could not do this, even if there were no enemy in the church.

The individual instruction of recruits is in general so capitally carried out in our infantry that, if I go on to speak of everything, you will say to me: "But what you write about is what I see every day; why then should I read it?" while if you were not an infantryman all these details would bore you to

read. I will not therefore enter into every part of this most important portion of our training, but will only speak of some few points, which to judge by my observation are worth mentioning.

With the infantry of the Guard I often saw whole companies with their recruits go out in the winter to practice field exercises, and this only a few weeks after the recruits had joined, and long before they had been inspected and had been sent to do duty with their companies. In the division which I then commanded I found this practice more rare. When I had discovered the object of it, I encouraged the infantry which were under my command to do the same, and the results showed me the advantage of it.

The man who, during the quarter of a year that he remains a recruit, sees nothing but the barrack square and his barrack room, and is employed only in the most mechanical and elementary exercises, may easily get into a stolid state of mind and make no further progress. But if he has an opportunity, once in the week, either in the morning or in the afternoon, of going out into the open to learn his field exercise, he recovers from the monotony of his elementary training, and gets an approximate idea of his work as a soldier together with a fresh desire to fit himself for it. Such excursions into the open country have as refreshing an effect as have the trips which a master makes with his scholars, when he takes the boys out of the close air of the school-room, and teaches them practical botany. Recruits can be taken out to these field exercises in winter as soon as they have been from a fortnight to three weeks with the colours. They may at first march

in rear without arms, and may during the exercises stand in close order to mark the position of the supports, while the older soldiers act as skirmishers, patrols, etc. The instructors can then point out to their notice, almost as if it were a game, all the different items of the field exercise, which taught in theory in their hours of instruction would take a disproportionate time, since that which he can see has far more interest for any recruit than that which he has to imagine.

You will perhaps say that the time available for the instruction of recruits is already very short, and that it is impossible to take whole mornings and afternoons from the elementary exercises. So I thought at first. But when I inspected the recruits I asked for the daily return of drills, and found that the recruits of the very companies who had made most use of this practice, marched the best at the inspection and showed an excellent discipline at drill. This was because they were not made stupid by doing only recruits' drill. Besides, without the recruits, no company can carry out such practices in the winter, since the guard and fatigue duties of the garrison, in addition to the necessary musketry instruction, take too many of the men belonging to the batches of earlier years, the recruits not being yet available for garrison duty. For these reasons a captain cannot get hold of the older men more than once a week for the purpose of practising the field exercise.

But this is enough; and what a capital time of year it is for these exercises! The snow and the frost enable us to go everywhere, and the occupant of

the land cannot claim any damages. It is obvious how superior to a company ordinarily trained will be one which has practised its field exercise ten or twelve times in the winter, at its full strength, during the recruits quarter of the year.

Another point which I consider of great importance is this: our men have to learn and remember too many numbers, so many indeed that simple and untrained heads cannot do it. Only think of the regulations of the school of musketry with regard to the height of the sight at different distances. I think we might simplify this. I do not dispute the truth of what the school of musketry lays down, but it is too much for an uneducated man to remember. I think that it would be sufficient if he knew that when firing at cavalry at 400 metres and under, he is only to use the 400 metre sight, and is always to aim at the feet of the horses; and that when firing at targets representing men at ranges under 400 metres, he is to use only the small leaf and should aim at their feet. Then the soldier has to think only of the 400 metre sight and the small leaf. He must be taught to follow the command of his officer (section leader) at ranges above 400 metres. If, however, he has to do with a target representing the bust or the head of a man at short ranges, I think that, rather than burden his memory with a mass of figures, it would be better, considering how much practice at targets our men have, to teach him to judge instinctively how much below the target he should aim, according as, in proportion to the range, it is more or less distinctly visible.

On other points also their instruction burdens the

memory of the soldiers very much; I think too much. I believe that if the instruction were more applied and practical this might be diminished. We have, it is true, excellent directions for instruction, but I have never yet seen a handbook which confined itself solely to what the private soldier ought to know; this should be divided into what the recruit has to study, and what the older soldier must be taught. I do not think that you could do a greater service to the infantry than by preparing such a handbook. It would be a long and tiring task, for you must employ an immense time in trying to make it very short.

LETTER IV

FIGHTING IN EXTENDED ORDER AND THE NEW REGULATIONS

In the further training of our infantry, in the marching drill of single men as well as in the instruction of squads and in the manual and firing exercises, we find the same care given to the training of each man as an individual as in the first elementary drill of the recruit. An infantry officer who has done his duty thus from the beginning and has paid attention to nothing else, does not recognise the excellence of this system and its logical development so well as an officer of another arm who, as I was myself, has been accustomed to see the foot drills carried out in masses, and is astonished to see how quickly these drills can be learnt, when they have been preceded by a careful training of the individual soldier. When a man can march well, that is to say naturally, freely, in an unconstrained manner and firmly holding himself upright, proudly and with self-confidence, when the small squads marching at three paces interval can move straight to their front and wheel well, then the drill of the complete company is a mere trifle and can be easily taught.

How rich in results is the training of the individual

soldier! This is one answer (I say one of many) to the question which I asked in my first letter, as to whence were derived the excellence and the superiority of our infantry. An important part must be attributed to the instruction of the soldier in fighting in open order and to his habit even in this of obeying the orders of his officer. Wherever this training of our soldiers has been properly made use of, there our infantry have obtained great success with comparatively small loss; but where the officers have attached little value to fighting in open order, they have suffered loss to such a degree that success has often been doubtful, and failure might even have occurred if it had not quickly been brought into use.

I have already in my first letter referred to an action which furnishes a proof how much smaller were the losses of regiments which attacked in swarms than of those which advanced in company columns. Allow me to mention here yet one other episode of battle which I saw at Sedan.

We were standing in position to the east of Givonne, fronting to the west, with the village of Givonne, which was occupied by the rifles and fusiliers of the Guard, lying in the deep valley of the Givonne to our front. It was about 1 P.M. The enemy's infantry had drawn back from the opposite edge of the valley of the Givonne as far as the Bois de la Garenne, which stood on higher ground. A few companies of our infantry had made use of this opportunity to occupy the farther edge of the valley. One company of the rifles of the Guard had done so from Givonne in front of my line of artillery, while in front of the left wing of that line two companies

of the "Franz" regiment, under Captain von C., advancing from Haybes, had taken up a similar position. The last two companies had crowned the farther edge of the valley, and had got under cover in a single thin line of skirmishers. The enemy's artillery fire was as good as silenced.

Suddenly to the south of the Bois de la Garenne a thick mass of the enemy's infantry rushed out of a hollow which runs from the wood to the Fond de Givonne, and charged as hard as they could run on Haybes, and therefore directly on these two companies. I judged these masses of infantry to amount to 5000 to 6000 men, and think now that that must have been about the right number, since, according to the French account, this must have been the left wing of Wimpffen's despairing attempt to break out (Grandchamp's division). The enemy's masses of infantry, running up in deep columns, fired incessantly as they ran with their rifles held horizontally at the hip, and thus covered themselves with a cloud of smoke. You could distinctly see with a field-glass how the men loaded and fired as they ran without raising their rifles to the "present." To the naked eye the mass looked like a gigantic advancing heap, blue above (the tunics) gray in the middle (the smoke), under which the red trousers and the struggling legs showed with a sort of trembling movement. Though I gave the order as quickly as possible to all the batteries of my line of artillery (90 guns) to open a rapid fire on the enemy's masses of attack, I could not help feeling very anxious about the two companies of the "Franz" regiment which lay on the other side of the valley of the Givonne,

for if the enemy's masses succeeded in getting to within 200 paces of them, I should not be able to fire any longer with my guns at the head of the attack, on account of the danger of hitting our own infantry.

I had reason indeed to be nervous. Though the shells, striking and bursting in the midst of the thick masses of men, wrought horrible destruction, and threw them into confused heaps in which smoke and dust were mingled with the colours of the uniforms, while above them men's bodies and limbs were hurled up into the air by the explosions, the mass still came on nearer and nearer, for the enemy fought with the courage of despair. The moment soon came when I was compelled to order the fire on the head of the column to cease. This head broke loose from the mass, and charged in on the companies.

In contrast to the thick smoke which was made by the rapid fire of the French, no fire could be seen to proceed from our companies. I turned my field-glass on them, and then at last saw here and there the puff of a discharged rifle ; the whole line of skirmishers lay flat on the ground, their rifles at their shoulders and their sights on the target. Captain von C. only, walking up and down as gracefully as we often see him at a ball, moved along his line of skirmishers, and (as he told me afterwards), exhorted his men to aim quietly and shoot slowly. But each bullet struck down one of the advancing enemy ; the number of those who drew near to the skirmishing line grew less and less ; a few even reached the line, and there met with their fate at the muzzles of the rifles, for two of our men lie there bayoneted through the back from above. But the

whole attack, which was commenced with such boldness, died away. Only a few survivors turned to fly, and were shot down by the pursuing fire of the infantry. The whole mass was destroyed in the space of ten minutes! On the other hand, the entire "Kaiser-Franz" regiment lost during the whole of the battle of Sedan only 2 officers and 80 men. Of this loss only a very small proportion was incurred by these two companies during the short episode which I have related. So great is the superiority of the well-aimed, well-directed, and good individual fire of troops, who have been correctly trained in detail, over shock tactics in mass-formation! It is not the offensive, as such, which has lost all use and value owing to the system of instruction and the perfection of firearms, but such shock tactics in mass-formation!

This was already made evident in the war of 1866 by the destruction of the brave Austrian columns of attack. But the greater part of the success of the Prussian infantry was to be ascribed to the superiority of the breech-loader rather than to the fighting formation, since our infantry also frequently used closed formations in this war. But in the example from the battle of Sedan which has been quoted, a mass-formation was employed by that force which possessed far the better infantry arm; and yet it could not stand against the inferior weapon, even though the proportion of numbers was 6000 to 300! Granted that the 300 were supported by an effective fire of artillery, and that this destroyed half of the column of attack, yet the odds will be still 3000 to 300, or 10 to 1. This superiority of individual fire on the defensive over

mass-formations in the offensive must have increased since the infantry weapon has been yet more improved.

It is easy to understand how hard it is for infantry officers who have grown old and gray in the service to give up their dear old fighting formations. But such formations as those of Frederic the Great, who personally led on to the storm his battalions deployed in close order with bands playing and colours flying, halting only at 100 paces from the enemy to fire a volley, are no longer possible in these days of Gras and Mauser rifles. The movement also, by which a brigade of 6 battalions, while the first line of 3 battalions fired volleys in line, sent forward its second line in columns of attack through the intervals in order that they might charge in with the bayonet, is no longer suitable to the present day. New inventions entail changes, and the old movements which we have loved pass away like dreams. We must make up our minds to this. The much-loved modes of fighting of the knights of the Middle Ages had at last to be given up, and no Arnold von Winkelried can now decide a battle by gathering the enemy's spears against his own breast, and thus making a breach in the armoured ranks of the foe.

So also we must acknowledge that the charm of a well-dressed advancing column of attack (battalion column on the centre companies), as it moved in step to the tap of the drums, is gone for ever, since it must lead to the destruction of the assailants. Even the term "column of attack" has been changed in the last regulations into "column on the

centre ;" a proof how entirely we have renounced any idea of using the old column of attack within the zone of fire. Even the use of the smaller company column has been to some extent given up within the zone of very effective fire. In nine cases out of ten it will serve only to feed the fighting lines of skirmishers, and it will but rarely happen that a closed formed company column will be brought up into the front fighting line to work out the decisive struggle. Seldom indeed ; but its effect will then certainly *be decisive.* Thus it may be used by night, when the darkness will diminish the effect of arms of precision, or if smoke or their own loss has physically or morally blinded the eyes of the defenders, or if the ground affords cover to the advance of company columns which may take the enemy by surprise. But the essential point of infantry action will always be the individual action in the fire-fight, and that infantry will gain a decisive superiority which has understood how to train each individual man so that he can make the best possible use of his rifle, and has learnt to follow the signs, the orders, and the example of his leaders. For of what use is an effective fire, if it is not carefully directed on the most important point? The real difficulty of the training lies in teaching the men to steadily follow the directions of their leader, in spite of the (so-called) loose order, and to preserve discipline. This combination of discipline with individual action was the cause of the superiority of the German infantry in 1870-71, and will make any infantry superior to that of the enemy, if the latter has not attained to the same standard.

This is well known among us even in the highest ranks, and all the changes which have been made in the regulations, as shown by the infantry regulations of the 1st of March 1876, point to this end. We not only see, as I have said above, the old "column of attack" done away with altogether, and its place taken by the "column on the centre," to be used only as a rendezvous formation outside of the zone of the enemy's fire. The formation in two ranks (company columns) is in the 14th chapter expressly laid down as the regular fighting formation, while the greater part of the regulations deal with the application of "fighting in open order."

The changes which have been made show that the highest authorities of our army have used the experience of a victorious war to carry out improvements, and have thus acknowledged that some deficiencies did exist. We need not be ashamed to own this; we should rather glory in it. Indeed, if we look closely into the phases of our battles, we shall acknowledge that our infantry, especially when they met the enemy for the first time, were exposed to his fire in columns which were at once too strong and too deep, and that this was the principal cause of the heavy losses in the earlier battles. I might for instance, as an eyewitness, make mention of the Guard corps, though I saw it only from a distance, since during the battle of 18th of August (Gravelotte) I stood in the centre of the line of artillery, and thus at a considerable interval from the main infantry fight.

However I need not enter at any length into the details of the attack of the infantry of the

Guard on St. Privat, since you will already have read and heard enough about it, and since you know that the losses of this infantry in front of St. Privat have been the principal cause of the many propositions and experiments as to how, given that a force acting on the offensive must cross open ground, it may best avoid such colossal losses by means of some other tactical formation.

You can form some idea of the terrible effect of the fire, when I tell you that a flock of frightened sheep which burst out from Ste. Marie and galloped across the front of the Prussian infantry, and which were perhaps in the dust which they raised mistaken by the enemy for cavalry, were killed down to the last sheep. They afforded a most welcome meal at the bivouac of the Guard corps on the following day. There are situations in battle in which the hearts of men are so affected by the sense of danger, that there is an end of all manœuvring; they can move neither to the right nor the left, and can only advance or retire. After they had once unexpectedly come under this fire of the enemy, which they had undervalued beforehand, only a forward movement was to be thought of, and the officers, recognising this, shouted nothing but, "Forward! Get on!" Thus it came about that shock-tactics, which four years before had failed before our fire, had now apparently to be used by us. But fighting in extended order soon developed itself out of the combat in masses, since the fearful gaps which were caused by the enemy's bullets destroyed at once the cohesion of all closed bodies, and broke them up into swarms which—Honour to the Heroes!—continued to ad-

vance, until they arrived so close to the hostile position that they were able to answer the fire of the foe. At this point they received the order to lie down and to take cover (which was very imperfect) in the folds of the ground and in the furrows, to beat down the enemy's fire with bullets, and thus, with the assistance of the batteries which had pressed forward with them, to prepare the way for the storm by a long fire-fight, for the assault could not be fully carried out until the left wing of the XII. corps was in a position to assist by a flank attack.

I have not watched the fighting of the infantry of other bodies of troops with sufficient closeness to enable me to form a settled opinion with regard to it, but the proportions of the losses in the earlier and the later battles give such strong evidence on this matter, that I am inclined to believe that the details must in general have been much the same.

The brilliant author of the work *The Nation in Arms* comes, it is true, to another conclusion. He cites amongst others the instance that the whole of Werder's army, in the three days' fight on the Lisaine, lost only as many men as a single regiment of infantry in the battle of Vionville-Mars la Tour. From this he concludes that the longer the duration of a war the more does the energy with which it is conducted fall off. I must own that, so long as the war lasted, I noticed no falling off in the eagerness of our troops to push on. Quite the contrary. When General von Budritzky, on receiving the order to storm Le Bourget, on the evening of the 29th of October, sent in answer the following message to the general in command: "The first shot shall be fired

at 8 A.M.; at 9 A.M. punctually I shall be in Le Bourget;" his infantry did not fail him. They pushed on with such impetuosity that punctually at 9 o'clock he was able to step over the barricade at the Northern entrance. But the leaders had become more careful in the employment of fighting formations, after they had recognised that those which had been used up to that time, and which were laid down in the regulations, were not all suitable for every emergency. It is certainly not desirable, as a rule, to depart from the prescriptions of the regulations, but when one sees that the conditions are different from those upon which the regulations were founded, it then becomes necessary to do the best for oneself that one possibly can. But, if the needful changes have not been made in good time, that is to say in peace, this knowledge will be bought at a terrible price. The changes in the regulations which were made after the war fully recognised this necessity.

These changes in the regulations, which are laid down in the new edition of the 1st of March 1876, have certainly not satisfied all who have thought over the need for such modifications. It was scarcely possible that they should do so, since opinions differ so widely, while the propositions made were so many and so clever, that some of them may be considered as more brilliant than practical. But the new regulations were founded upon the whole progress of long-range weapons. The elasticity of the regulations, the freedom which is permitted to every one as to the formation to use in any particular case, the margin which is allowed with regard to the

intervals between closed bodies of troops and the firing line, and above all the formal order that the instructions contained in them are alone to be observed (which forbids the narrowing directions of other authorities), renders it possible for leaders in war to select always that which is right, and to adapt their movements to the ground and to the dispositions of the enemy.

LETTER V

ARE ANY MORE CHANGES IN THE REGULATIONS DESIRABLE?

YOU are quite mistaken, if you gather from the close of my last letter, in which I stated that the new regulations are founded upon all the improvements of the new weapons, that I desire no modifications in them. As you will like to hear what changes I do wish for, I will tell you at once.

In the first place, the editing of the regulations is such that it is very difficult to find your way about in them. The matter might be far better arranged. It appears to me as if the members of the committee which edited these regulations of the 1st of March 1876, had not always been unanimous, and as if they had made compromises with each other. I am confirmed in this opinion by the fact that the regulations of 1876 are not stated to be altogether new, but are styled, "A new edition of the regulations of the 25th of February 1847, taking into account all modifications which have been made up to the 1st of March 1876;" thus the old plan has been retained, while the various changes have been inserted in their proper places. The consequence of this is that, before one can get a clear idea as to the real

intentions of the regulations with regard to the most decisive and important instructions for battle, these have to be collected from various parts, under the heading of the company, the battalion and the brigade, and have to be then compared with each other. This considerably increases the difficulty of the study of the regulations. It is certainly a matter for argument, whether this is altogether a misfortune, since an officer is thus compelled to work up the regulations carefully if he proposes to master their spirit; while since, thank God, it is the case that the regulations with all their changes and modifications are the outcome of the experience of the last century, and not the mere fancy of any particular moment, it is fortunate if officers are compelled to really study them hard. But since one has to search for instructions which are laid down in different parts of the book, one remains doubtful about many matters, and this is undesirable, for regulations ought to leave no room for doubt. They ought to be accepted as the statement of military dogma, which is not open to criticism.

I will, for example, show you one doubtful point by asking you: "Do the regulations permit that a deployed battalion which is advancing in line to the attack, with drums beating, shall halt to load, with the object of firing volleys?"

Para. 49 contains the directions for the advance in line with drums beating. But this para. is part of the 10th chapter which, together with the 11th, 12th, and 13th chapters, deals only with the formation in three ranks. The formation for battle is not considered until the 14th chapter, and this formation

is expressly stated to be in two ranks. But since in the 14th, 15th, and 16th chapters, which refer entirely to the fighting formation, there is no mention of the advance with drums beating, one is driven to believe that by the regulations the advance of a deployed battalion in line is limited to the formation in three ranks, and that this movement is to be used only as a test of good drill, and that on the other hand the advance of a battalion in line for the purpose of firing volleys is a movement which, owing to the improvement of the infantry weapon, cannot possibly occur and ought not to be attempted in battle, that is to say, within reach of the enemy's effective fire. After having arrived at this opinion, we come upon para. 88, which contradicts it at its very beginning with the words: "The charge with the bayonet will be carried out by a battalion advancing in line, etc. etc.;" though in all that has gone before there has been no mention of a battalion advancing in line from the first fighting position. According to these words the regulations do not declare it impossible that a battalion may advance in line in battle. But nothing is laid down as to "how" this advance is to be made when the formation is in two ranks, or as to whether the drums are to follow in rear, or the colours to lead the way.

Allow me to allude to another doubtful point: "May the word of command: 'Halt, to load!' be given to a battalion advancing in line?" This word of command is mentioned only in para. 43, as applicable to a closed detachment which pushes forward into the firing line as a support to the skirmishers of a company. One would think that

when a battalion advances in line with the object of opening fire, it would rather be a question of not losing a second before answering the formidable fire which will meet it. But there is nothing laid down in the regulations on this point, and one is left in doubt as to whether this evolution is generally permissible.

I must honestly own that I have never troubled my head much about this doubt, for I am entirely convinced that the advance of a battalion in line within the zone of fire, as also the word of command to the whole battalion: "Halt, to load!" can never take place in war, and that it an officer commanding a battalion should attempt it, he would find it impossible to carry out. But the more such an officer is convinced of the sacred inviolability of the regulations, the more will he, when drilling his battalion, be troubled by this doubt, since he cannot tell whether he ought, must, or should practise such a movement. If he practises it and his superior officer does not approve of it, he will be told that he has not followed the regulations; if he leaves it alone and the superior officer asks to see it, his battalion will be held to be insufficiently drilled. Such a doubt as this is therefore an evil, since it destroys all confidence in the regulations; for this reason the latter ought to be drawn up more clearly.

Another wish, which I cannot refrain from expressing, is yet more important. When I consider that the formation in which our infantry will in future generally fight at the most decisive moments is a line of skirmishers, it is in my opinion of no importance whatever whether the closed formation, in

which the supports and the columns move, is in two or in three ranks. I therefore think that we might return to one single formation for all closed bodies of infantry. We have now two formations. That in three ranks is the normal formation; the regulations themselves call that in two ranks the "fighting formation." Is it not an anomaly that our normal formation should not be applicable to battle? During the whole of the last war no one ever saw infantry move in any other formation than that in two ranks, and the first occasion on which I again saw the infantry in three ranks was at the parade at Longchamp, after the conclusion of the preliminaries of peace. How much more simple and intelligible would the regulations be, if we had only one kind of formation!

This system of two formations springs from the time when we used only the men of the third rank as skirmishers. But since the introduction of the breech-loader every man is instructed with equal care in this duty, and as firearms have been so improved that decisive struggles can be fought out in open order only, while closed masses can only exceptionally be moved within the reach of the enemy's fire, there is now no reason why the fighting formation should differ in any way from the normal one.

I desire therefore, above all, that the regulations shall lay down only one kind of formation, either that in two ranks or that in three.

I have found that this twofold formation leads to many inconveniences. It is of no little importance for battle that the division of the company

into sections, half-sections, and squads shall be permanent. But if a company falls in in three ranks, and then changes into two, owing to the firing section being found by the third rank, the entire hierarchy of the system of command is broken up. If, on the other hand, the division into squads is based on the formation in two ranks, then the normal formation in three ranks is a mere chimera, or at any rate it ceases to be the normal formation. During the war one naturally divided the company into squads, etc., according to the formation in two ranks, since one always marched, stood, and fought in that formation.

But even in peace this twofold formation has the disadvantage, that it uselessly entails the expenditure of a great deal of time, which is thus lost for instruction. In the first place, it takes a long while to make clear to the recruits the elementary fact that he belongs now to this and now to that section, and that he has to pay attention to and obey now this and now that N.C. officer or officer. Moreover, not a few drill instructors take an especial pride in taking up formations and in performing evolutions with the skirmishing sections out, and in then forming them into the third rank again, and all this without losing step. The regulations certainly forbid that this change from one formation to the other shall in any battalion be made the subject of an inspection. But the men of "the good old school," and those zealous persons who take them as a pattern, practise it enthusiastically at company drill with every possible complication. You may hear the words of command given in the following

order: "Column on the right!" then "Quick March!" then "Form company column!" "By sections wheel!" "Form the third rank!" "Right-about turn!" "Form company column!" "Quick March!" "Left turn!" and then again, "Form the third rank!" and all sorts of similar ingenious fancies, which are found only on the drill ground, being the product of a heated brain, which is itself the consequence of cold feet. When a drill instructor of this kind did not succeed, by means of the most extraordinary combinations, in getting his men into a state of hopeless confusion, his face shone with the same delight as is felt by the victor in a pitched battle. When I saw this sort of thing, I could not help praising the zeal of the drill instructor and the longsuffering of the men, but neither could I help asking: "What on earth is the use of it all?" I was generally told that its object was to make the men smart. But some old drill instructors who had carried out these manœuvres from their youth up, while they still retained the conviction that drill ought to be the means of training men for battle, have acknowledged that a change of formation made in step had no effect whatever in making the men smart. They simply called it "a proof of drill," carried out in order to throw dust into people's eyes, and confessed that it was liable to fail at once, if the specially drilled flank men of sections were changed (for example, if the right-hand man of the company was sick); they drilled for the pleasure of drilling. A great deal of time and trouble was thus wasted upon a practice which did not in the least improve the men. But this waste of time would no longer

take place if we had only one kind of formation. A far better way to make the men smart at drill is by often drilling the company as is laid down in para. 43 of the regulations, without keeping each man to his one special place in the ranks; unfortunately you very seldom see this done.

You ask me for which formation, that in two or that in three ranks, I should decide if I had the choice? No, you do not ask anything of the kind. You take it as a matter of course that I prefer that in two ranks. But think a moment! You are quite wrong about me. In the first place, I might say that it appears to me a matter of no importance whether masses are formed in two or three ranks. Thus said one of the highest authorities in our army, when I put this question to him; he meant to say, because infantry now fight only in extended order. But if I must give a decision on this point, I decide for the formation in three ranks. I think that, even in skirmishing, the file of three men, who are bound to hold together and support each other, is better than the file of two. For if the file consists of two men, as soon as one is wounded the other is left alone. There are further other considerations which are all in favour of the formation in three ranks. A company formed in two ranks is too long when it is at war-strength, and this considerably increases the difficulty of command, if the captain or the sergeant-major has to give an order to the whole company. All the other columns (in sections, or in half-sections) seem to me more handy in the formation in three ranks, and they can also adapt themselves better to the ground; in any case they

are not so deep, since the section interval is less; and the length of the column when marching by files is shorter.

I can think of no disadvantages which would result from this formation. If a closed support or a whole company found itself in a position to fire volleys, the formation in three ranks would not in any way diminish the effect of the volleys. Our regulations even recognise volley-firing in four ranks. On the contrary a body of troops formed in three ranks is more easily controlled than one in two ranks, and this is of importance when many volleys have to be fired, and the target and the sight have therefore to be changed.

But some drill instructor may ask me, How are we to extend, when a battalion advances in line, without causing gaps in the line; for example, at the word "Extend!" when the leading half-sections of companies are thrown forward? With a full recognition of the evil which might result from this, I should lay down that a closed battalion which is advancing, whether in column or in line, should, at the word "Extend!" always throw out the two flank half-sections of the whole battalion, then the two next, and so on. It is true that the intervals between two neighbouring battalions advancing in line will be thus greater than they now are; but that in my opinion would matter little, considering the present range of the infantry weapon, especially if we take into account that we shall never again see several closed battalions marching in one line against an actual enemy; this will only take place in the second or third line.

There are thus many things to be said in favour of the formation in three ranks; I do not know one in favour of that in two. Yet stay! You may perhaps say, the Square! You must be joking! I have studied the official accounts of 1866 and 1870-71 with care, and in all the six volumes have not found a single case mentioned in which Prussian infantry have formed square, with the exception of Des Barres' battalion (the 1st battalion of the 11th Grenadier regiment) at Langensalza. All the other cavalry charges have been repulsed without forming square. I may therefore well be pardoned for not having thought of the Square.

Another suggestion which I should offer, if I ever sat on a committee on the regulations, would be the suppression of the "Shoulder arms!" The Austrian infantry prove to us that it is possible to come from the "Slope" to the "Present," while sentries might, as in Austria, salute by presenting instead of by shouldering arms. The march-past with shouldered arms should also be given up. If you wonder why I am an enemy of the system of shouldering arms, I will ask you to watch recruits at drill and convince yourself how much time and trouble it takes to teach the soldier this motion, and how much skill is needed, that firstly, the butts shall not be too far to the front and thus spoil the whole appearance of the ranks, and secondly, that the rifle shall not, owing to the butts being too far to the rear, overbalance from the shoulder and lean to the front. Now as to the march-past with shouldered arms! Though with the greatest care and trouble the troops have been taught a good, free, natural and easy march, we

shall find that, owing to the discomfort of carrying the arms at the shoulder, and owing to the balance which must be preserved in order that the right hand may hold the small of the butt and not the knob of the lock, the step will become shorter, more constrained, and more tiring; this will be caused principally by the tendency of the men to lean backwards, in order that the rifles may rest against their shoulders. Marching with shouldered arms must therefore be practised hundreds and hundreds of times before it can become free and natural. What an immense amount of valuable time, which might be usefully employed, is lost in this! Against the abolition of the "Shoulder" you may perhaps urge that this motion exercises the muscles and thus tends to give a smart bearing to the men. I should certainly be the last to propose to give up any of the peculiar rigid bearing of our army, since that is the source of our admirable discipline and is also the outward expression of obedience. But I think that just as good a bearing might be obtained with the "Slope," and I believe that the saving of time in instruction, time which might then be used for tactical improvement, would be so great, that it would be worth while to train a battalion, once as an experiment, without the "Shoulder Arms!" while the others should be drilled as now. If the rigidity of movement of this battalion fell off, even in the smallest degree, I should be prepared to let my idea drop.

With the same object of saving time by abolishing such things as appear to me to be of no use, I should lay down that the manual exercise, wheels, and

dressing by the rear should be practised at company drill only. The regulations already forbid closed columns to be used for drill or inspection by any body of troops larger than a company. If only this prohibition might be extended to the manual exercise, wheels, and dressing by the rear! We now not only see the officer commanding a battalion assiduously practising the manual exercise and wheels with his own battalion (which indeed he must do, since it is so ordered in the regulations), but we even find brigadiers who have a taste for that sort of thing making all their 6 battalions do the manual exercise simultaneously in such a manner that the whole brigade shall move together. There is nothing about this in the regulations, and yet you may often see it done. The officers commanding regiments and battalions must fully rehearse this with their commands, in order that all may go smartly. I at one time thought that it was a proof of a narrow mind, when I found a brigadier practising this sort of thing, but I have seen some men do it who were well known to be intelligent; when I put to them my constant and very annoying question: "What is the use of it?" I received the answer that it was traditional and that every brigadier did it. A great deal of time is thus also put to waste.

But in these days time is money; and this is true not only for English tradesmen, but also for the Prussian army. I think that we take up as much of our drill season by the manual exercise by the battalion, by the "Shoulder Arms!" and by our double formation in two and three ranks as, adding it all together, would amount to six weeks in the

year, or at least to six or eight weeks in the three years of service. How excellently we might employ this time in moving across country during the winter when all the fields are covered with snow and we can therefore go where we like, or in working with companies in disorder,[1] or in practising marches, or in any other similar practical tactical exercises, for which we now lack time and opportunity.

I may finally be permitted to draw attention to a slight omission which I have noticed in the detailed instructions of the regulations. There is in fact no exact order with regard to the manner of unloading the rifle. A rifle is frequently fired during unloading. If the men then have their arms at the "order," the next man may very probably be hit, as soldiers often hold their arms slanting while unloading. If they unload in the ordinary loading position, the front ranks are in some danger. It is best, as I have proved with the division which was under my command, to unload at the "slope."

[1] The words used are "*unrangirter* Kompagnie." This means that the men have fallen in promiscuously, and not in their customary places.—*N. L. W.*

LETTER VI

ON COMPANY EXERCISES

YOU have completely misjudged me, since you have gathered from the desires which I have expressed with regard to some modification of the regulations, that I wish that the exactness and the precision of the drill should be somewhat relaxed. Quite the contrary! When I said that I should wish that the manual exercise, wheels, etc., should be no longer practised by battalions, and that these units should not be inspected in them, I desired so much the more on this account that everything should be worked out and studied with even greater care during the training of the company. It is entirely because I am anxious that the details of the regulations should be more strictly carried out that I should like to see these regulations cut down to what is strictly necessary, so that they might be worked out and studied as exactly as possible by the very smallest units, and that thus the elementary portion of the exercises might reach its climax in the company, instead of, as at present, in the battalion. For the manner of fighting which has become necessary, owing to the improvements in firearms, allows us no longer to work or to deal with the

battalion, of which the place is taken by the company, as we may learn from the plan of any battle and from the maps in the official account. The company has thus become the practical tactical unit, though for the sake of convenience we still reckon by battalions, for the reason that a company has too little fire power to last and melts away too quickly in battle. The careful training of the company should therefore be a matter of the greatest solicitude, since the drill of the battalion goes a little above elementary, and more or less enters upon the sphere of applied, tactics.

For this reason I have always maintained that the drill of a company should occupy itself rather with the "how" than with the "what," whereas in the exercise of a battalion the opposite is the case. The officer commanding a company very rarely finds himself in war in a position to make great tactical, and still less strategical, evolutions. His objective, whether in the offensive or the defensive, is as a rule very clearly marked out for him. But the struggle, so far as he can influence it, is decided by *how* he carries out his work, by how his men take advantage of the ground, how they find cover, how they shoot, and whether they hit, and how they obey his signals and orders with regard to advancing, lying down, aiming, and the nature of fire. The more therefore that the centre of gravity of the struggle rests upon the independent action of individuals, the more do we need discipline, by which I mean that intelligent obedience which welds this independence of many individuals into a concentrated whole, and into a real power. Have we not all quite recently received a

proof that all the inventions of modern times, breech-loaders, mitrailleuses, and rifled guns are useless against that most primitive weapon, the spear, when no discipline governs their action. I refer to the annihilation of Baker's troops at Suakim. For we cannot assert that an Egyptian is a coward by nature. The armies of Mehemet Ali and of Ibrahim have proved the contrary in the first half of this century.

I consider therefore that it is necessary, when dealing with a unit up to and including a company, to pay attention only to the correct execution of such things as are ordered. If the officer commanding the company reaches this standard, he will have sufficiently employed his capability of instructing and supervising. I cannot, on the other hand, think it right that scientific tactical evolutions should be carried out at company drill. But we do see, and not rarely, fancy movements, which are quite unlike anything which could possibly happen in actual battle. For instance, you may see an exercise carried out which consists in sending one section against the front of the enemy, while the second attacks him on one, and the third on the other flank, until at last he is hemmed in, on the exact pattern of the battle of Sedan; but in practice we shall never find an enemy at once so indolent and so complaisant. False ideas are thus excited, springing directly from impossible representations of fighting during peace. As a man works his company during peace so will he try to work it, at any rate the first time, in war. If the result does not come up to his expectations it is practically a failure. For

this reason a "Turk," as a complicated manœuvre has been nicknamed by some wag, should be banished from all company exercises, which are carried out only on the level drill ground or barrack square.

It is quite true that pressure on a flank has now tenfold power. I have repeatedly seen this in war, not only on a large scale, as when at Königgrätz we of the II. army fell upon the flank of the Austrian line of battle, but also in the case of small bodies. For example, in the battle of St. Privat we were for hours engaged in a delaying action of artillery in front of the enemy's position, which crowned the heights between St. Privat and Amanvillers. The enemy had pushed forward some battalions extended as skirmishers down the slope to their front; the fire of these troops caused so much loss to my batteries, that the General commanding the corps sent me successively 6 companies as an escort; these were for the most part distributed by sections in the intervals between the batteries, in order to prevent the enemy's swarms from rushing in against our front, as our skirmishers had done at Königgrätz in the attack on the Austrian artillery line between Chlum and Nedelitz. But the French skirmishers remained at a distance of from 900 to 1000 paces, and continued to inflict loss upon us, while our needle-gun could not hit their scattered individuals. The brave infantry soldiers of the Augusta regiment wished over and over again to rush forward, in order to free us from our troublesome *vis-à-vis*. But since I had been ordered to carry on a delaying fight for a time, and since the infantry who could advance were fewer in number than the enemy, and

would have masked the batteries by their advance, so that the latter would have had to cease firing, I several times stopped this premature valour. Major von R. then suggested to me that a company might be pushed forward by a hollow in the ground upon the enemy's left flank. Since this movement did not mask my fire, I permitted it to be carried out. Hardly had this company (Captain von A.'s) opened fire from the prolongation of the enemy's line of skirmishers than the whole line rose and retired up the slope. Now at last we were able to see how large were the numbers of the hostile infantry who, hidden in the furrows of the ground, had laid wait for us in such threatening propinquity. We reckoned them as being in all 9 battalions, which lay in three lines one behind the other. Our shells wrought great destruction among these masses, as they fled up the slope. Since, by great good luck, the general advance on St. Privat took place immediately after this episode my batteries now found the ground open in front of them, were able to advance at a rapid pace, and to reach the heights to the right of St. Privat. Thus the sudden flank fire of one single company had made 9 of the enemy's battalions fall back. The effect of such a flank fire is magical, especially owing to the idea which seizes the enemy when they are surprised by it, that they are in serious danger.

But this effect can be produced only when either the direction of the advance leads directly against the enemy's flank, or when folds of the ground, to which the foe has paid no attention, give an opportunity for it. In very rare cases will the force

which can carry out such a flanking movement be less than a company; while the company which does carry it out, will as far as it is itself concerned make a frontal attack. The highest aim for instruction which a company can select for itself will therefore be an exact regulation frontal attack; at the most it may add slight changes of front, the reinforcement of the fighting line, the withdrawal of men from that line, good fire discipline, and the most accurate use of its rifles.

This, as I have said, will give the officer commanding a company enough to do, if during the drill season he drives it thoroughly into his men. But this need not prevent any captain of a company, during the manœuvres or in war, from skilfully taking advantage of the ground in order, when possible, to gain the enemy's flank, and from making a frontal attack with his excellently trained company upon the flank, rather than against the front of the foe.

Every infantry officer knows how hard it is to teach the men to handle their rifles correctly. It is not sufficient that the soldier should know what he is to do with his rifle; no, he must also make use of this knowledge instinctively without having to think what he ought to do. I will only remind you of the need for careful attention to the bolting and unbolting of the safety apparatus. Just as the sportsman, befores he fires, without thinking mechanically cocks his gun, so the infantry soldier must, before *he* fires, mechanically but correctly, slowly and without a jerk, unbolt the safety lock, and must again bolt his loaded rifle when the fire has ceased.

He must be one with his rifle, and must know whether it is loaded or not without being obliged to look to see. He must mechanically, and without having to think, come correctly to the "present," and he must be quite unable to pull the trigger in any other way than slowly and without a jerk.

It is unfortunately a common fault of drill instructors, when teaching the handling of arms, to attach greater importance to the working together, and to the resounding slap on the butt (to which every sergeant would like to join an "Eyes left!"), than to the skilful use of the rifle in accordance with the regulations. Even under the very best drill instructors it is a long time before the correct handling of his arms becomes second nature to a soldier. He must practise it hundreds and thousands of times. But it *must* become second nature to him, for when the mind of an ordinary man is affected by the knowledge that his life is in danger, he does only that which is made natural to him by constant practice; it is impossible to expect much at such a moment from his powers of reflection.

This is also true of fire discipline. I have very often observed how in battle, in the presence of danger, fire discipline falls to pieces. Troops which are not properly instructed do not aim; they do not even shoot; they simply make a noise. Even before I had ever seen an action, men with experience of war assured me, that it was a proof of a certain standard of training in infantry, if in a hot fight they put their rifles to their shoulders before firing. During the battle of Königgrätz I witnessed some most irregular fire which, as the rifles were held

vertical, all went up into the air. I was galloping on in front of my batteries, in order to select the next position to which to lead them. When I, accompanied by my major, some aides-de-camp, orderlies, and a trumpeter, reached the heights, I found myself within about twenty or thirty paces of a mass of the enemy's infantry of the strength of about half a battalion ; they had been turned out of Chlum, which lay on our right, and wanted to get to Nedelist on our left, and thus found themselves between our infantry, who had already advanced beyond them, and my line of artillery. They were as much surprised as we were, and thought that our group of ten to twelve horsemen were the Staff leading a charge of cavalry. At least they opened an irregular fire. I was quite close, and I saw most of the bullets go straight up into the air. Only one man took aim, and hit the major's horse in the body as he turned to retire ; for we few horsemen could not certainly attack 500 infantry with the sword ; so we hurried back to our batteries and opened fire on them.

But how far more difficult than even this it is to teach infantry during the excitement of battle to attend to words of command and cautions, as to on which target, with what sight, and with what description of fire they are to act, whether they are to use volleys or independent fire, and moreover to accustom them to cease firing when they have expended the stated number of cartridges in independent fire. But every one who has seen even only field firing on a range knows that the effect of our costly infantry arm is *nil* unless the words of command and the cautions which are given be obeyed. .

Certainly much has been done to simplify the use of the rifle. I especially refer to the flat trajectory which, when the enemy is so close that independent fire alone is possible (since the fight then rages so hotly), permits of the use of a single sight, provided that aim is taken at the bottom of the target, *i.e.* at the feet of the enemy. But if, as I have shown above, it implies a certain degree of fire discipline when the men will even bring their arms to the "present" before firing, how much more will be needed before they can be made to aim at the bottom of the target.

In other respects also the excellent instructions which are given by the school of musketry demand an extreme amount of self-restraint from men who are highly excited by battle.[1] Among these I include the limitation of the number of cartridges and the periodical cessation of fire when a rapid fire is ordered, that is to say, when the enemy is within decisive range. It is asking very much of a man who is under the enemy's fire, to expect him to cease fire in return for a certain space of time. I have under various circumstances experienced with artillery how difficult it was to make the fire cease, when this appeared desirable in order to allow the smoke to disperse, with a view to make observation possible. A fire which has once commenced gets easily "out of hand" unless an iron discipline prevails. How much more difficult must this be in the case of infantry, where the men firing are so much more numerous. It is so natural, so human, that the soldier should find comfort in the noise which his

[1] The latest musketry instructions contain decided simplifications.

rattling rifle makes. The less a man is trained the more is he inclined to "shoot up his pluck." During the first campaign in which I took part, I was present at an unimportant affair of outposts, after which a lieutenant inspected the pouches of his men. The older soldiers had fired three, four, or five rounds, but all the recruits had expended over twenty. If we take such facts into account some little doubt will steal into our hearts as to whether the word of command "Five cartridges rapid fire" can ever be obeyed in close fighting under 300 yards. This word of command or warning was not introduced among us until after the last campaign. It has not yet been actually tried on active service.

Another kind of fire discipline has been tried by us since the last war; namely, that of swarm volleys. It seems to me, as a gunner, very advantageous to keep in hand in this way the fire of the infantry, just as well-fought batteries act with concentrated strength. This sort of fire proved itself often very good at the manœuvres, where the men are allowed to expend only ten or fifteen cartridges each, and where the smaller charge of the blank cartridges makes less noise. But matters turned out very differently when it came to the fire of masses in field firing. The officers then, owing to the greater noise made by the ball cartridges, had to raise their voices much more if they hoped to be heard or understood; indeed most of them before the end of the practice were so hoarse that no one could understand a word they said. It is evident that this will be the case, if you realise that a section extended as skirmishers has a greater width of front than a closed company,

while the lieutenants are on foot, and cannot therefore so easily superintend the whole line, as can the commander of a company or of a battalion who is mounted.

It is still more doubtful how far it will be possible to ensure a distinct order, and its execution, to use two or three different sights, as has been laid down under certain conditions. For there will very rarely be sufficient time to see that such orders are correctly carried out. However, this point is not of such extreme importance, since the use of different sights is only laid down for long ranges, at which, as a rule, no fire will be opened. Recourse will be had to this system only when particularly compact and deep targets present themselves within the zone of fire; for example, when masses are defiling over bridges. These are exceptional cases, and therefore not such as decide a battle.

Theoretically accurate as are all these speculations which have been started by the school of musketry, and useful as they have been in inducing us to study the nature of our rifle and of our infantry fire, there is yet some little danger that we may in time of peace be taught by them to nurse illusions, whose non-fulfilment at the moment of battle may have a discouraging effect.

It seems to me that a line of skirmishers which during a hot fight pays so much attention to the shrill whistle of the lieutenant, that it ceases firing for a moment, looks at him, and obeys his sign to rise and rush on, or his order to fire on another target or with another sight, proves at once that it has attained to a high degree of fire discipline.

For this reason complicated things should not be practised too much, but the time should rather be employed in going over simple things hundreds and thousands of times, until they have become second nature to the men and they cannot help doing them. It is not until then that we can safely count upon their being carried out before the enemy. Clausewitz says that everything in war is simple, but that what is simple is difficult.

But though I wish that the exercises of the company should be limited to the simplest and most elementary things, and that all tactical, and above all strategical, combinations should be forbidden, yet I do not deny that it should follow some tactical idea, and should, as they say, smell of powder and ball. On the contrary, I should desire that the officer commanding a company, when once he has made such progress that the men know how to obey his word of command, should as often and as long as possible drill in such a manner that he should seem always to have an enemy on the ground before him. He can and should always lessen the tediousness of the march to and from the drill ground by moving in a fighting formation or with some tactical idea, and should come on to the drill ground by some movement which might be carried out in war in the presence of an enemy. Even when on the march he will frequently find an opportunity of carrying out here a short combat of skirmishers, and there an attack, while the remainder of the march can be employed in impressing upon the men the elementary forms of the duties of advanced guards, patrols, scouts, etc. Time may thus be saved, and

time is money. I gained in my division the very best results as regards the conduct of field service, by ordering that no troops were ever to move during peace, whether it were to the drill ground or on an actual march, without doing so in fighting formation and with some distinct tactical plan.

LETTER VII

THE COMPANY OFFICER

THE contents of my last letter lead me naturally to speak of the importance of the inferior officers, namely, the Captain of the company and the Lieutenant. They are in fact the soul of the whole of the instruction and execution of infantry duty. This is certainly the case in the other arms also, but the very circumstance that, while in the cavalry the strength of a body of troops is counted by horses, and in the artillery by guns, in the infantry alone it is reckoned by men, shows at once that in the latter arm the human physical element is the only important one, and that the influence of their leader on individual men has greater prominence in the infantry. But this influence, this guidance of individual minds, is exercised by the Captain and his Lieutenants, that is to say, by the company officers. The N.C. officers are merely an aid to them, carry out what they order, and derive from them their authority; while the higher ranks are too far separated from the men and, owing to the great number of individuals under them, cannot possibly know the peculiarities of each. The company officer alone knows Tom and Harry, or Atkins

and Smith. He has instructed him, praised or blamed him, and rewarded or punished him. This is why the soldier confidently follows his officer in battle, and it is his immediate commander who electrifies him and makes him do great deeds. Who has not seen many examples of this in war?

On Easter Monday 1864, during an outpost fight in front of the Düppel forts, when it was intended to attack the enemy in his rifle-pits by night, and that our troops should occupy the latter, the companies of the 18th and 8th Regiments, as is well known, pushed on to the front instead of taking cover, and found themselves at the break of day close up to the forts (which were proof against a *coup de main*), whence they had to retire with considerable loss. A soldier from Upper Silesia answered his landlord (who happened to be there as a Knight of St. John) who had blamed him for going so far to the front, by saying in broken German: "But when the Lieutenant runs to the front, we must run with him."

During a fight in a village in front of Paris a churchyard on the flank of the village was held by half a company. The regiment to which it belonged had up to that time performed wonders in hard fighting. All the greater therefore was our surprise when an attack by the enemy cleared the churchyard, so that we had to recover it by storm. After the action I spoke to some of the men who had formed the original garrison of the churchyard, and asked them why they had abandoned it to the enemy. They openly said: "We had no officers left to tell us what to do, and so we went off." The

enemy's artillery fire had unfortunately at the very beginning put both officers *hors de combat;* one was killed, and the other wounded and senseless.

But enough of examples. Every infantry officer who has been in action could give you plenty of them, all showing how in our army the company officer is the soul of the infantry, that he breathes his spirit into them, and with what unlimited confidence our men follow their officers. General von Rüchel said even in the last century: "The spirit of the Prussian army is in its officers," and this maxim is even more true now, when the fighting masses of infantry must at the decisive moment break up into their smallest units, such as can be guided only by the voice of a Lieutenant; so much so, that whereas I in my second letter said that there were good grounds for asserting that not the Prussian schoolmaster but the Prussian N.C. officer won our battles, I am now almost inclined to say that our victories were due neither to the schoolmaster nor the N.C. officer, but to the Prussian subaltern. The Lieutenant is indeed during peace, year out and year in, the schoolmaster of the men. I have in saying this no wish to speak in any way slightingly of the work of the senior officers, and I will here remark beforehand that my later statements will show that I fully feel their importance. And even within the limits to which I shall keep to-day I will blunt the point of any unfavourable interpretation which the above, perhaps rather paradoxical, statement may suggest, by drawing attention to the fact that all senior officers have at one time been Lieutenants, and that the Lieutenants hope to be some day senior officers.

But let us to-day confine ourselves specially to the Lieutenant, or rather to the company officer (including the Captain) of infantry, and let us ask ourselves the question: Whence comes this influence on the masses which generates marvels of courage, and is so powerful that they obey his signs in the greatest danger, even when the dispersion of closed bodies, which is due to the new mode of fighting, renders it impossible to watch and control each individual man? It arises from the indefatigable activity of the officer, from his spotless honour, and from his Spartan self-denial.

There used to be times of peace during which an officer appeared to have nothing more to do than to go on guard, to drill in the spring and summer for a few hours of each day, and to run across country at the manœuvres. In those days the Lieutenant had many nicknames, such as "street-trotter," some of which the people still keep up. But when do you now see a Lieutenant strolling up and down the street? If you see him at all it will be only at mid-day when he, while the men are at dinner, is on his way to breakfast at some *café* or confectioner's (for his dinner hour is 3 or 4 P.M.), or perhaps on Sunday, when he is paying visits to his friends. At all other times, from early in the morning to late in the evening, he is hard at work.

When the sun shows itself above the horizon he has to look after his men to see that they are clean and that everything is in order, and also to give them instruction on such points if they need it. After that he has to teach and drill each individual man in various details. Gymnastics and drill the

handling of arms and musketry, field service and interior economy, he has to teach them all, while in each of them he must be a model to the men, since they will not learn anything unless the officer knows it better than they do. In this manner he is hard at work during the whole day. Any one who only now and then, as he passes by, glances at the drill ground, may perhaps think that these simple exercises can easily be learnt in a few hours. The infantry officer knows how much trouble and work they need, and any one who, without prejudice, has read my earlier letters, will acknowledge it, even though he is not a soldier, especially when he thinks of how much time must be given to musketry instruction. A company fires from 15,000 to 20,000 rounds per annum at a target, and not a single shot may be fired unless an officer be present; he is responsible for all measures of precaution, and each shot must be entered under his eyes in the practice report. A company has rarely more than two officers available for this duty. What a demand this must make upon the nerves, the stamina, and the sense of duty of an officer, for he must never weary and never allow his attention to wander, while he has to stand for many hours together in all kinds of weather, in winter as well as in summer, in snow and frost, as well as in sweltering heat, and shot after shot, has to watch the manner in which a man aims, to see that all due precautions are taken, and that each score is correctly entered. For if there is the slightest neglect, an accident may easily happen, and then the responsible officer will be sent before a court-martial. Moreover, he often has to carry out this duty against the will,

and under the opposition of the civilian population, and even of the civil authorities. For it has sometimes happened that the local authorities have presumed to officially forbid the continuation of the practice, because some rifle has been by accident fired up into the air, and the ground behind the butts is not considered safe. Indeed, the zone of infantry fire is now very deep. We have had men wounded in action by chance shots, at a range of 4000 paces from the enemy's skirmishing line.

Many people imagine that a Lieutenant is at leisure when he has completed his work of the morning and the afternoon, and goes to his dinner at 4 P.M. On the contrary! Hardly has he finished his dinner than he has to give theoretical instruction to either the N.C. officers or the men. The soldier in the *Fliegender Blätter* certainly says that theoretical instruction is that which is not practical, but a subaltern laughs at this as a good joke, all the more heartily that he knows that it is only exceptionally true. In military matters, this kind of instruction is absolutely necessary, while it is not confined to military matters only. Many things are taught which are of the greatest use to a man when he leaves the service, while the few men who join unable to read or write are then taught to do so. Many men learn more with their regiment than they did during the whole of their time at school. I remember when I was a Lieutenant, we had a recruit whose education had been totally neglected, but who was otherwise clever enough; I taught him reading, writing, and arithmetic, and he became first a sergeant, and afterwards a paymaster's clerk. The

results obtained by regimental instruction are far more marked than those of any school, since the average age of the men is over 20 years, and they therefore work harder, and understand better the use of instruction than school children do. For this reason also they feel more attachment to the instructor of their riper years, and are willing to follow his orders through toil and danger, if only he will set them the example.

But even this is not all that a subaltern has to do. In addition to the duties of his profession he must study that profession itself. He must exercise himself at gymnastics, he must read, he must speak at discussions, in addition to attending among the audience at all regimental meetings, he must send in memorandums on various subjects, and must take a part in the tactical war-game. His evenings, after he has finished the instruction of the men, are three or four times a week employed in this manner, so that the remaining evenings only are available for recreation and for intercourse with his family or his comrades. The demands made upon the subaltern officers are increasing to such an extent, that when one of them succeeds in getting into the War Academy, he looks upon the time spent there in earnest and hard study as a relaxation from the burden of regimental duty.

But of the company officers the Captain is even harder worked than the subaltern. He shares all the fatigue of his officers, and while the latter have to do special duties, he has to go from one to the other to supervise them, and, in the case of the inexperienced younger subalterns, to instruct them

and teach them their work. When he returns home to his family, or hopes for an hour of rest, his sergeant-major appears and reports to him, to-day some crime which he must carefully inquire into, punish, and enter in the defaulters' book, and to-morrow some question connected with pay. On another day he must go to the clothing-store to issue uniform, or perhaps he has to stop disorderly conduct in the barrack rooms; for down to the smallest detail he is answerable for everything which concerns his company, and must have everything at his fingers' end. It has thus become a proverb that the life of an officer commanding a company is not his own, since he never has time to enjoy it.

I know very well that the same ranks in the other arms are quite as hard worked. But the subaltern of infantry has to run about on foot, while the cavalry and artillery officer rides, and is thus saved very great fatigue at drills and manœuvres. The former therefore expends far more strength at his work.

But these exertions and fatigues would not of themselves alone enable the officer to obtain such an enormous influence over the mass of his men, if he did not cling so fast as he does to his stainless honour, and unless the private soldier knew that he could entirely trust himself to this spotless honour of his officer. The soldier recognises that in this respect the officer is superior to him; he does not ask the officer to set him a good example, for he knows that he will do so, and that to maintain this honour he will always be to the front in danger; thence arises a feeling of attachment, and of the im-

possibility of leaving his officer in the lurch, and thence also that spirit among the men which finds its expression in "When the Lieutenant runs to the front, we must run with him." I should have to write volumes if I wished to state how far the influence of the sense of honour among the officers extends in this respect, while to do so to you would be to carry owls to Athens. The elevated standpoint which the honour of an officer occupies is the object of the highest esteem on the part of all educated civilians, and is the object of the envy of all those who desire to destroy our existing social and political institutions. How they rejoice and shout when, quite as an exception, it happens that one or another out of the tens of thousands disgraces himself. How full the papers are of it for a long time, and how vainly do they endeavour to involve the whole service in the shame. Vainly, I say, for the service is stainless. It casts out such an individual from its ranks without any regard to consequences, and without ever allowing him to return; and it gains in position by this openness and disregard of consequences, since it does not hypocritically display a mere outward garment of honour, but clearly shows its inward determination to hold fast to its reputation.

There can be no better evidence of the spotless honour of officers as a class than the bitter hatred of such men as, being themselves destitute of all honour, wish to destroy everything which the bonds of the family and the Fatherland have hallowed. But we ask those who, even though they are not military men, yet desire the stability of these bonds,

to give a noble answer. We hear much of the envy which is felt of the privileged class of officers, yet every citizen is proud if he can number an officer among the members of his family, and every one is glad to receive an officer into his house, while every place which officers frequent is, from that fact alone, assumed to be one where a good tone prevails.

I know very well that as far as regards the question of honour there is no difference between officers of infantry and those of the other arms, and I hope that the latter will not blame me for having spoken especially of the infantry while touching on this point. For the officers of infantry are in the greatest number, and, moreover, they are the best examples of the third reason upon which the influence of the officers over the men depends, *i.e.* in their Spartan self-denial, while this self-denial, necessitating great efforts, is an expression of their sense of honour. There are certainly many officers in the cavalry who are as frugal as those of the infantry, but we find as a rule that officers who are well off prefer the cavalry, and these do not have to exercise the same self-denial.

On the other hand, the greater number of infantry officers are poor, sadly poor, and the pay which recompenses their ceaseless activity is extremely small, so small that the greatest statesman of his time among us spoke, when he was a deputy, of the "splendid misery" of a subaltern. Even now the pay of a Lieutenant is so exceedingly scanty, that any one who does not receive assistance from his family undergoes the most bitter privations, which

he endures silently in his quarters, while publicly he keeps up the position of his rank.

It cannot be denied that many families, when they allow their sons to select a military career, contrive by some means to give them assistance in money as long as they are subalterns. But many cannot do this. I have known young officers who joined from the Cadet corps, whose mothers, themselves the widows of officers, could once and for all assist them in their new rank with only the sum of fifteen shillings and an old coat belonging to their father; others I have known, of a good, old, and noble family, who had not even these fifteen shillings, and whose sisters counted upon some assistance from their pay as Lieutenants. Thus it happens sometimes that an officer who has in the evening been invited to tea with a family, shows such an appetite for bread and butter as amuses every one, while later on, when things are going better with him, he may, perhaps, own that the reason that he was so hungry on that evening was that, being very hard up, he had eaten nothing all that day. Another again, for his evening meal, will buy ration bread from his *bâtman*, who is much better off than he is, giving as his reason that it is good for his health, but really because it is the cheapest. It is scarcely necessary to say that these officers freeze in their rooms, for they have no money to buy fuel, and that they do not wear their cloaks in the coldest weather, because if they did they would wear out their coats too quickly; they give out that they dislike to wear such warm clothes. But if it is a question of appearing in the streets or on parade, or

if he has to go into society, then our Spartan is the best dressed and the gayest of all. Do not tell me that there are exceptions to this rule, and that there are officers who, infected with the generally prevailing love of pleasure, waste their money, and the property of their families, and at last come to grief. How could it be possible but that here and there an officer should suffer from the prevailing epidemic? But the exceptions prove the rule, while the sensation which such exceptions excite, is the greatest possible proof that we expect Spartan manners in our subalterns, and that we find them.

But how does the private soldier feel with regard to such an officer? He is filled, not with pity, but with admiration. He hears at once from the *bâtmen*, his comrades, of the circumstances of the officer. And when he sees that the Lieutenant is comparatively poorer and worse paid than he is himself, and that he can afford himself less enjoyment and fewer pleasures, but that at the same time he is his master in knowledge and acquirements, and is a model for him in danger, how can he help being seized with emulation?

Indeed a Lieutenant is very badly paid. A skilled artisan, whether he be a locksmith, a cabinet-maker, a turner, or a shoemaker, earns more in a week than a subaltern, to say nothing of such trades as require special technical knowledge, and which are far better paid. Why then is it that our Spartan does his duty? Why does he expend the cost of his elementary instruction, which would fit him for any other career; why does he show an extraordinary and unresting activity in peace; why does

he give his blood and his life in war; when after all this he can expect no recompense? He is influenced only by his desire for fame and glory, and by the high position which the spotlessness of his true honour wins for him in the society of all men.

So long as the rank of an officer holds, even in the case of Lieutenants, this exceptionally honourable position, which in spite of his youth gives him the entry into all circles of society, so long will it retain its force of attraction for the most cultured classes. If this position were taken away the very highest rates of pay would not make good the harm done, for gold can never take the place of honour. He who lives only for money and pleasure may say with Falstaff: "What is honour? Air!"

The above-mentioned honourable position which the rank of officer holds in general society in Germany is naturally a subject of envy to all other professions, and that rank is therefore, especially up to within the last 20 years, distasteful to them. After the attacks which were made upon it had failed of their effect, an endeavour was made to turn it into ridicule. This animosity has latterly much decreased, a change which began after our victories over the enemy. When I returned to Berlin after the war of 1866, a well-known man of business and a genial burgess of Berlin asked me to explain the following facts: the burgesses of Berlin used formerly to think the officers of the Guard haughty and exclusive gentlemen, and were really troubled about the return of such victorious warriors. They gave them, as seemed proper after such deeds, a grand entertainment, during which they dis-

covered that they had to do with the most modest and charming men in the world. I could only say to the good man that this showed how very far wrong they had previously been in their estimate of the officers of the Guard. Another reason for the cessation of the animosity against the rank of officer is, in my opinion, to be found in the institution of officers of the reserve. Owing to the realisation of universal military service it has become customary for every educated and honourable man, if he cannot serve a few years as an active officer, to endeavour to be at least an officer of the reserve. How can he feel animosity against a class to which he himself to a certain extent belongs? How is it possible for *The People in Arms* to hate its leaders?

It is certainly true that the typical figure of the ornamental Lieutenant of the Guard still exists; he still twists his sprouting moustache, speaks through his nose and cannot see without a glass in his eye. He still appears now and then on the scene, and make one's sides ache with laughing, whether or not he wears the lace of the Guard; but as a matter of fact he has nearly disappeared. When here and there he does come to light, as a sort of excrescence of exaggerated regard for honour and elegance, experience has taught us that men like him are exactly those who, in moments of danger or in the midst of fatigues and hardships, make it a point of honour to prove themselves good men and to show well to the front. So, though we may laugh at the comic side of the man, we must admire the very extravagance of his feelings.

Why do I write this to you, who know it as well as I do? It is because I feel that, after the attacks which were made last year, even in the *Reichstag*, against the honour of the army, no one of us should keep silence if he has any opportunity whatever to bear witness as to the true state of the matter, and that we should all give expression to the wish that this spirit in the army may long be maintained. I have tried to investigate the causes which have led to the successes of our infantry, and, as I have said, I have found that one great cause was the spirit of the officers as a class, which finds its expression in their unwearied activity in the discharge of their duty, in their stainless honour, and in their Spartan self-denial.

LETTER VIII

BATTALION EXERCISES

As in my earlier letters I have discussed the individual stones which form the foundation of that magnificent building, our infantry, so will I pass on to-day to the principal story, the companies combined into the battalion.

The battalion exercises are divided into two parts, namely, the elementary movements laid down in the regulations and the combat. The regulations give all necessary directions for both. Those concerning the combat are so elastic, that they adapt themselves to all circumstances and are not only entirely sufficient, but could also scarcely be better thought out, with the object of affording the necessary guidance, while at the same time they leave free scope to the individuality of each leader, and fully develop that independence of the junior officers which is so needful when fighting in extended order. Often as I have examined these regulations, I can still not refrain from astonishment at the spirit which inspires them, and which gains its full expression in paras. 112 and 127; of these the latter, it is true, is laid down for the brigade, but it yet applies equally well to the battalion.

And yet we find frequently, and even generally, that it is especially these most important paragraphs of the regulations which are not observed during the exercise of a battalion. On the contrary, as the lapse of years tends to separate us from our last experience of war, the exercise of a battalion becomes every day more rigid, more of a sealed pattern, and more based on systematic routine, except indeed where the influence of the inspecting officers strives against such rigidity, insisting that the letter shall be subservient to the spirit, and be ruled by it. But this is very difficult, for this rigidity and routine are not products of indolence, but are due entirely to the exaggerated zeal of the officers commanding battalions.

In consequence of this, the style and the manner in which the officer commanding works his battalion, tends daily, more and more, to differ from anything which he could by any possibility carry out in action. While this very fact is caused by his most earnest endeavour to bring his battalion to the highest possible standard of perfection.

I will give you some examples in detail, in order to make good my assertion.

Although on page 152 the regulations expressly say that when under an effective fire from the enemy, the employment of a battalion column can be permissible only under exceptional circumstances, yet during the greater part of the exercise of a battalion we find the extension of the skirmishing line carried out from battalion column, and we see these skirmishers come at once into action, while the battalion, which is still in column, is standing so close in rear

of them, that it absolutely must suffer from the same fire which strikes them. At the very best the flank companies are sent out, and then an effort is made to keep to the normal formation by placing the centre companies exactly in rear of the middle of the intervals.

We seldom find any use made of the permission to send out whichever companies, and as many as you please (a practice which is ordered by para. 111), or any advantage taken of the directions of para. 112; at the best some movements are made at the close of the drill with the companies in two or three lines, and then without any effort to represent their employment in action.

Take again the simple reinforcement of a skirmishing line which is firing lying down. According to the regulations the units are as far as possible to be kept intact, while the mixture of the skirmishers of different commands is to be avoided. But when a fresh section advances in extended order to reinforce a firing line, most of the men who are lying down on the position in question at once rise up, and move left and right to make room for it. Could such a movement to a flank be possible, if the fight were so hot as to necessitate the advance of reinforcements? Would not these skirmishers, who all stand up and move together to a flank, be certainly sacrificed to the enemy's bullets? Might not the sections which are first extended leave from the beginning an interval between them for the use of any reinforcements which may become necessary? If that were done would they not, on that very account, be more easily directed as regards the

working of their fire, since they would not be so much dispersed and would thus be easier to command? Would they not also, by keeping together in groups, have a better chance of finding cover behind such features as the ground might offer. This fault is especially common when several battalions are working together as a brigade. In that case the skirmishers are often ordered to cover the whole front, and are directed to extend to such an interval from each other, that the individual men may be equally distributed along the front of the whole line of battle. They are thus often at intervals of 10 paces, while the regulations lay down 6 paces per file, or 3 paces per man, as the maximum interval. As if it could do any harm if at any time there should happen to be an interval of 200 paces between two extended sections, and as if an enemy could hope to get through that interval alive!

Again; how often do we find an officer commanding a battalion who is willing to leave it to the officer in charge of the skirmishers to decide, according to the intensity of the fight, whether he shall order independent fire, rapid fire, or swarm-volleys, or shall lay down the number of cartridges to be used? Or how often do we meet with such an officer who will permit the companies which are following in support to take up, according to circumstances, the one a column, the other a line formation, or *vice versâ?* Will he not always prefer to make both companies move in the same formation, for the sake of uniformity and of a good appearance? But in action could he be in a position to thus take command of everything everywhere?

Of such routine movements as the regular character of the drill ground easily tempts us to use, but which destroy all initiative, I will mention only one. When a battalion, after it has been broken up to fight in skirmishing order, sounds the "assembly," with a view to form in column on the centre (which is as a rule done at the termination of the exercises), it ordinarily fronts towards the end of the drill ground, since it usually ends by marching past. A battalion is rarely practised in quickly assembling on a somewhat oblique front, and it gets very confused, and also expends an unreasonable amount of time, if it be required to assemble fronting this tree or that church tower. But it ought to be able to do this quickly if its training is to prepare it for war; otherwise much time will be wasted and the men will be fatigued if it is ever necessary to adapt the troops to the ground, for example, to place them under cover behind an undulation.

There are an endless number of such drill-ground habits, not to mention little aids and dodges, all absolutely impracticable in war, which assist in making the drills correct and smart. Every soldier knows them, and I will not trouble you by speaking of them, but will pass on at once to the conduct and behaviour of the officer commanding the battalion.

At the commencement of the field exercises the officer commanding the battalion will certainly be found, mounted, near that one of the skirmishers who fires the first shot, and who himself must find cover by lying down. He remains in the skirmishing line during the whole fight, and if perhaps he realises that he really could not fail to be killed there, he

retires at the farthest to some point between the skirmishers and the nearest support. From this place he gives words of command and directs signals to be made. But if any movement, a flank attack, or a reinforcement, is to be carried out, he is certain to ride up himself and give orders for everything. Above all he will be sure to do this if a mistake has once happened, if an order has not been correctly delivered, or the wrong description of fire has been used, or if anything is done contrary to his wish. He ought to be declared killed hundreds of times in the space of an hour. He goes to every point, except just to the very one where he ought to be during the whole duration of the action (if it were a real one), that is to say, to that company which he has told off as his last reserve, and which alone he should accompany into the foremost fighting line, unless he wishes prematurely to hand over the command of the battalion; this company he never goes near.

Proceedings like these, arising from life on the drill ground and totally false to nature, raise very dangerous illusions in the minds of all those who have no experience of war. For they think that things really happen like this in war, and easily lose their heads when they find that in real work time and space do not fit in with the ideas which they have formed from their experience on the drill ground. And there is more even than this. The men who have been accustomed to see the Lieutenant-Colonel[1]

[1] In the original this is the "Herr Major"; I have ventured to translate it as above, in accordance with our system of command. —*N.L.W.*

well to the front, begin to make remarks if, as soon as the bullets whistle, he remains in rear with the reserve company; the consequence of this is that, at any rate in the first action in which he takes part, the field officer must certainly ride where he has been in the habit of riding, in order to avoid giving occasion for such remarks.

It is true that a General of high rank and a participator in the War of Independence once said, in the year 1850, in a criticism (in which he blamed such impossible proceedings in his peculiarly biting manner), that he was confident that the first bullet would set everything right. But his conviction was not realised. At the battle of St. Privat the field officers actually did ride where they had been in the habit of riding in time of peace, and the consequence of this was that on the day after the battle only a very small proportion of the field officers and adjutants of the whole of the infantry of the Guard were available for duty. The greater part of them were killed or wounded. This was very honourable to them, but was not necessary, and was of very serious consequence to the army and the Fatherland.

When one reflects on these matters in the study, it all appears self-evident, and one wonders how such unreasonable proceedings can have happened. But there must have been some reason for their happening so generally, and if we wish to avoid their terrible consequences, it is well worth while to investigate this reason.

These unreasonable proceedings arise, in the first place, from the fact that the officer commanding a battalion, when he begins to practise the exercises

cannot possibly remain at that point which he must occupy in action, namely, near the company which he intends to be the last to engage. For he finds occasion at every moment to go forward to instruct and correct, and has to ride about here and there, while even when he tries to go back to his proper position, something immediately happens in the fighting line which calls for his presence. He therefore prefers to remain in the front. It would theoretically be better if he let the faults pass, and delayed his correction and instruction until the "stand easy," or even till after the exercises were over. But this is not practicable. He would then find so much to say that he would have to be perpetually interrupting the exercises, in order to lecture his assembled officers for hours together, and would be sorely tempted to put off all his remarks until the next morning before they started for the drill ground; if he did this he would find at the end of his speech that the whole of the time available for drill had flown by, and he would be obliged to let the men go to their dinners; I once actually saw this. Moreover, a few words, at the moment, are more convincing and instructive than the very best and longest theoretical dissertation delivered after the event. Again, if the officer commanding a battalion is to observe and correct every fault, he must be near the fighting line. For example, if he remains near the reserve, he cannot hear faulty orders as to the description of fire, nor can he see if the men hold their rifles properly. Thus it comes about that the officer commanding a battalion is compelled, during the first days of the exercises, to stand where

he could not possibly remain in action; it so becomes a habit with him. The only day, therefore, during which he can himself move as he would in action, is that of the inspection. But it is asking very much of any man to require him to give up on this one day all that has become habitual to him, and to demand, which is even more, that on this one occasion he shall adopt a new mechanism of command of his troops, at the very time when he is called upon to show how much he has taught them, and when he must be most desirous that no faults shall be committed. You may perhaps urge that the officer commanding a battalion should be allowed at first, when he is practising elementary drills, to move about as he likes, but that he should, during the second half of the training, always, when practising movements for battle, station himself at that point where he would be in action. This idea is excellent, but it is impossible of execution. The time allotted to battalion exercises is so short, that the Lieut.-Colonel may think himself lucky if he can work once through all that is in the regulations. Moreover he cannot divide the days which are allowed for battalion exercises into two exact halves, during the former of which he may practise elementary drills, while the latter may be given up to the practical application of drill. For if out of the three weeks which are allotted to battalion exercises, from which we must deduct Sundays and holidays (as well as all days taken up by garrison duty, guards, and fatigues), he can manage to get ten days for drill, he will have done very well. No officers commanding battalions who have tried to carry out this plan have

succeeded in getting more than two days for exercises under service conditions, namely, the day of the inspection and that which precedes it. From this it soon came to pass that on the day before the inspection they attempted only such movements as they intended to show to the inspector, and the inspection thus sank to the level of a rehearsed performance, a kind of military ballet, so that both days practically lost all value for instruction under service conditions.

The inclination of battalion commanders to be everywhere and to do everything themselves will be increased by the obvious certainty that the inspecting officer will hold them responsible for every fault. It is only necessary that he should once or twice say something like: "Look, Colonel, how the *nth.* company is formed!" or, "But the skirmishers of the *x.* section are advancing by rushes; that is quite wrong!" and the Lieut.-Colonel will at once begin to gallop about from one section to another, in order to be in time to prevent the recurrence of anything of the sort.

There are even many commanders of battalions who, in their exercises under service conditions, hardly go at all beyond the paras. 77 to 98, and rarely venture into the 4th chapter of the drill regulations. What is laid down in the above paras. they carry out with perfect precision, and the battalion makes so good an impression, that a few imperfections in the contents of the 4th chapter are easily forgiven. But this is a backsliding into stiff drill and the tactics of masses, such as does not conform to the improvements in firearms, and can only lead to colossal losses.

I have often heard "working up for inspection" bitterly blamed. But if ever any blame was undeserved it is this, since the power of a body of troops is based upon their striving after an object by the direction of a single will, that is to say, on obedience and discipline; not, however, on that rigid discipline which does only what it is ordered and waits for the order, but on such as meets the order half-way and endeavours to ascertain and anticipate the wishes of its superiors. He therefore who exerts himself to show his troops at the inspection as nearly as possible as the superior officer would wish to see them does no mere eye-service, but practises exactly that correct obedience which has made our army great.

I have witnessed very remarkable consequences of this craving to do everything oneself. I have, I think, already once told you how, during a reconnaissance fight of a single battalion, the divisional General, the Brigadier, the Colonel of the regiment, and the battalion commander were all present in the foremost line of skirmishers, accompanied by their Staffs and even by a reigning German Prince. Accustomed as they were to do everything themselves at inspections, and rightly considering that a battle is the highest form of inspection, these gentlemen behaved exactly as they would have done in peace. On another occasion a division was marching in close order on an enterprise against the enemy. The divisional General, with the officers commanding the leading brigade, regiment, and battalion rode immediately in rear of the extreme point of the column, and the first man who was

wounded was a cavalry orderly who fell from his horse just behind his General shot in the breast by a rifle-bullet. In addition to the disproportionate loss in senior officers, and the consequent uncertainty in the distribution of command and the conduct of the action, which such proceedings lead to, they have other pernicious consequences.

Each individual has only a certain amount of strength of body and of strength of nerves. If one uselessly expends one's strength of body before there is any necessity to do so, one runs some danger of finding it wanting at the critical moment. It is just the same with regard to the nerves. No one is indifferent to danger to life. But the strength of our nerves carries us through. Generals who press forward before it is necessary into the foremost line of battle run some risk of finding their nerves fail them at the critical moment. This does not arise from a sudden spasm of fear; oh no! Shattered nerves do not act so straightforwardly as that. They cunningly creep upon a man in the shape of tactical and strategical considerations, and prove to him that all the rules of war command him at this particular moment to delay his attack, to fall back upon the defensive, or to break off the action; or they use some other beautiful scientific expression. Take, for example, a General commanding a division who has been with the foremost skirmishers from daybreak till noon, and has heard the bullets whistle for five or six hours, whilst the battalion of the advanced guard has been driving in the enemy's outposts, and who at last finds himself in presence of the enemy's main position, where the foe is awaiting him in order of

battle, being perhaps obliged to stand there because he is afraid that he will not be able to effect any farther retreat. A General so placed is easily inclined to believe that the troops are tired, because he is weary himself, and that they have done enough, because he himself has been for six hours under fire ; while as a matter of fact it is only the leading battalion which is fatigued. He decides then to put off the attack until the next day, when the neighbouring divisions may have come up nearer to him ; so he places outposts and bivouacs his troops, and the enemy whom he had surprised is thus surprised again, but this time pleasantly. For he so gains time to draw off without loss, and escapes the catastrophe which threatened him. If this General had spared himself more personally, if he had not already been for six hours in the thick of the skirmish, and if at the very moment when he actually broke off the fight he had been present with his fresh and intact main-body, he himself being fresh and not having yet been under fire, he would have taken quite a different view of the matter and would have ordered a general attack. Thus the misplaced and exaggerated energy which will insist on looking after even the smallest things, may be the cause of an absence of true energy, and courage which is premature may result in indecision in the conduct of an action.

Such faulty behaviour of Generals in action ceased altogether towards the end of our last lengthy campaign. After the war it was also at first given up on the drill ground. But it has gradually come in again, and threatens to become more and more

habitual as the peace lasts longer, not only because the duties of peace service, which find their full expression at the inspection, tend to become habits, but also because the experience of war diminishes. A chamber student of the Art of War once said, amid general laughter: "Experience of war has only a conditional value." But to a certain extent he was right. In war each grade in rank gains experience only for itself and for the grade above it. Thus an officer commanding a company learns his own work and that of a battalion commander, but nothing whatever concerning the direction or the command of regiments or brigades. The only exception is to be found in the case of such young officers as have served on the general or divisional Staff as aides-de-camp; they, if they keep their eyes open, see war from a higher standpoint. But now, after thirteen years of peace, there has been a good deal of promotion, and I cannot help hoping, for the sake of the younger generation, that we may soon have no more battalion commanders who took part in the last war in the rank of Captains of companies. But how can a subaltern, who commanded a section of skirmishers during the war, have gained any experience to teach him how he should carry out his work when he is in command of a battalion?

If he has now to command a battalion, he will do it in such a manner as he knows would satisfy an inspecting General.

Having shown that there is a tendency to work battalions in a manner which would be impossible in war, that there is too great a rigidity of formation, many unreasonable modes of proceeding, and a very

unpractical mechanism of command, the question arises as to how these evils are to be overcome. For fear that this letter may grow too long, I will postpone the discussion of this question to my next. I will to-day urge only one point, namely, that a strict rule should be made that all officers, from the highest to the lowest, should, both at inspections and at the manœuvres, be allowed to post themselves in such positions only as they would be able to occupy in actual war.

LETTER IX

THE INSPECTION OF A BATTALION

YOU do me wrong when you accuse me of having given too much blame with regard to the command of a battalion and too little with respect to that of a company; and when from this fact you draw the conclusion that I thus assist to exalt the duties of the younger and junior officers above those of the officers commanding their battalions, I am compelled to distinctly deny that I do so. On this subject you very rightly observe that the battalion commanders have themselves formerly been company officers. Even though I found something to blame in the customs of our system of battalion instruction, this has no reference to the battalion commanders personally, nor can it lower them in the eyes of their juniors, for they must have been sufficiently intelligent and capable to be selected to command battalions; otherwise they would have remained Captains. Moreover, they have a longer experience than the others.

Again, when I think that I can see some faults which exist generally, this is only another way of saying that it is much harder to instruct a battalion than a company on service principles. The latter

certainly calls for more industry, assiduity, time, and strength, but the training of the former is far more difficult, even if it be possible to carry it out in the time available. In order to train a company it is sufficient if we find, in addition to sound common sense, such knowledge as is needed in the rank of Captain, the feeling of honour which all officers possess, industry, conscientiousness, and a faithful discharge of duties. But this is not enough for a battalion commander. He must be skilful in apportioning and making use of the time available. This requires greater endowments and more natural talent.

Let us see now whether there are not some means of overcoming the evils of which I have spoken. The numerous attempts which have been made to remedy them show that others have recognised their existence ; or if they have not expressly recognised them they have at least felt them deeply. Even in the middle of the present century we gave up the old fashion of using in the battalion exercises merely elementary tactical movements in rigid formations, and of limiting them to wheels, the manual exercise, column formations, facings, deployments, movements to the front and oblique movements, of doing very little skirmishing, and that by whole battalions, and finally of making the march-past the great criterion of excellence. Battalion commanders who were being inspected, were permitted at the close of the exercises to make movements, such as would be used in battle, which they had themselves thought out, and which were not included in the regulations. This made the field officers pay attention to such matters, and they often brought forward new and

good ideas. Any one who suggested something of this kind, even if it was not accepted as altogether practical, gained at least the credit of being a man of original mind. This very soon got beyond reasonable limits. Every one wanted to invent something, and tried to keep his discovery secret up to the time of the inspection of his battalion, while after it he brooded during the whole year over how at the next he might show something yet more marvellous. The most extraordinary fancies sometimes appeared, of which one of the least wonderful was the celebrated river which was marked out by men posted across the drill ground, this being perhaps on the top of a hill. These movements, on account of the disorder which they always produced, were soon known by the name of "Turkish Manœuvres," or for short as "Turks." The fact that each battalion commander was permitted to carry out his "Turk" under the eyes of the inspector tended very much to destroy the authority of the regulations, since every one believed that, when he should come into a real action, he would be allowed, and even that he ought, to throw over at once all the directions given in the regulations. The precision of the regulation movements thus tended to decrease, and with this discipline began to get slack. The saying of the old drill instructor, which had its origin at that time—"The march-past, gentlemen, is, like painting on glass, a lost art,"—expressed somewhat originally the recognition of this evil.

After a few years then efforts were made in high places to repress the increasing tendency to wander from the regulations and invent new fancies, and it

was strictly laid down that when "Turks" were carried out, such movements only were to be made as were to be found in the regulations.

The use of company columns in combination with fighting in extended order was from time to time developed by supplementary orders.

After our experiences in war, especially those of 1870-71, it was permitted, for a certain time, to bring forward various propositions practically on the drill ground. These principally endeavoured to find a solution for the problem, how to advance to the attack over open ground which was under the fire of the enemy. The most marvellous formations again appeared. Sometimes the whole drill ground, for a length and breadth of 300 paces, might be seen dotted with files each of two men, and it was impossible to help the feeling creeping over one, that in this case a general "skedaddle" was being elevated into a system. You might see battalions doubling until they lost their breath, and even until they tumbled down, and then begin to fire in such a state of excitement that there was very good reason to doubt whether even a single shot could possibly hit its mark. You might even see thick swarms of skirmishers firing as they ran, holding their rifles horizontally at the hip. An enormous mass of literature full of suggestions turned the heads of such officers as thought about the matter, until at length they had no longer any idea as to what they had read in these pamphlets and what was laid down in the regulations.

The new edition of the drill regulations, on the 1st of March 1876, put an end to this state of uncertainty.

The 4th and 5th chapters of these regulations are sufficient for all exigencies of war, and (as I have already mentioned) owing to the elasticity of their directions, permit the infantry to be led under all circumstances in accordance with the character of the action and the nature of the ground.

How shall we now ensure that, during the long peace, we shall not fall back again into rigidity, and seek in the sections of the 3d chapter the one chief aim of our system of instruction?

I will now speak of the day of inspection. For as troops are inspected, so will they be drilled. At least the discipline of our army is still, thank God, so good that this result is certain.

The inspection of a battalion is in general carried out by employing a part of the time, after the parade and the march-past, on the 3d and part on the 4th chapter of the regulations. As a rule the inspecting officer states how much of the 3d chapter he wishes to see, and leaves it to the battalion commander to arrange an action in accordance with the 4th chapter; he, however, sometimes leaves the selection from both chapters to the battalion commander. The consequence of this is that as far as regards the second part, which is generally called the "fighting exercise," the battalion commander exerts himself to show how he thinks that the battalion may best be handled in action. For this reason he arranges everything so that not even a single skirmisher shall move otherwise than as he wishes. He will therefore have beforehand divided his fighting exercise (his modified "Turk") into distinct phases, and will have explained it all to his Captains, and will en-

deavour to prevent the smallest variation from his prearranged plan, for fear lest it may all fall to pieces. But this previous discussion over each phase makes the exercise a mere theatrical performance, which bears less resemblance to the reality in proportion as the officer has little previous knowledge as to how the later phases would work out in a serious action, while his endeavours to avert variations compel the battalion commander to move about into all sorts of positions where he could not be if the action were in earnest. Each of these faults destroy the independence of the junior officers, and each is thus objectionable, while there is nothing to be said for either of them, except the fact that by them the battalion is shown how it is desired that they should move in action, and that with this object errors and faults may well be prevented.

The result of this is that the fighting exercises, when they are left altogether to the battalion commander, frequently extend into scientific tactics and are even complicated with strategy, so that they, owing to the slow pace at which infantry can move, use up the time and the strength of the men to an excessive extent. This applies especially to the inclination which is good enough in principle, to make use of the effect of flank movements. For the battalion commander will not allow the company which has been told off to attack the enemy in flank to make an entirely impossible flank movement within the reach of the enemy's annihilating fire, and must therefore detach it outside of this zone, that is to say, he must, when the drill ground is large enough, commence his attack at a distance of 2200

yards. The effect of this is that the turning force has to get over a yet greater distance, while the advance by rushes and the fire-fight, which must last some little time, will cause this single movement to take up at least half an hour.

Moreover the flank attack hardly ever succeeds. Either it takes place too late after the main attack has been pressed home, or else it takes place too soon; or again one of the two, either the main or the flank attack, delays the other so long under a decisive fire from the enemy that its defeat is certain. For infantry have not the power which cavalry possess, of making good such differences of time by an increase of pace. Only one form of attack in combination with a turning movement can be carried out at drill without waste of time; this was the invention of an old General of high position. He placed from the first that company which was told off for the flank movement at right angles to the skirmishing line of the frontal attack, and made them move in this formation towards the enemy. Thus the skirmishers of the turning company marched in single file, like a flock of geese, in the direction of the enemy, while near them on the outer flank moved the company column. How this gentleman could possibly imagine that an enemy would be kind enough to allow such a flank movement I cannot understand, for such foes as I have seen him attack gave him no reason to suppose that they would be so good-natured. I certainly in saying this transgress the maxim, *de mortuis nil nisi bonum*, but I wanted to give you at least one proof how far the imagination may wander, if we forget that saying of

Clausewitz which I have already mentioned: "In war everything is simple, but what is simple is difficult."

When I commanded a division I made every exertion to remedy, within my sphere of action, those evils which I have mentioned, by carefully carrying out the inspections of battalions. After some attempts, which failed because the battalion commanders, owing to their excess of zeal, overshot the mark, I arrived at a mode of proceeding which stood every test, as I succeeded in proving during an experience of seven years. It also showed me that the battalion commanders were fully capable of training their battalions correctly, and that they had been debarred from doing so up to that time solely by the character of the inspection. I proved even more than this. I was delighted to find that, as soon as my intentions were rightly understood, my own tactical ideas were improved upon by these officers. This was only natural; for they had been longer in the infantry than I, and had experience of every detail in war either as field officers or as Captains. I thus learnt from those under my command. I will therefore tell you my system of inspecting a battalion, for I consider it to be the correct solution of the problem. You can try it if you like, and either adopt or reject it. I merely give you the result of my experience.

I began my inspection of a battalion, like everyone else, with a parade and a march-past. I attach great importance to these, for one can judge from the parade if the men are well set-up, and from the march-past if they set down their feet well and

march without crowding ; and from this whether the instruction in details has been good. I learnt this fact by comparing what I observed at the inspections, both of recruits and companies, with what I noticed at the march-past. Again, nothing shows so well the sort of treatment which the men receive as the look of their faces on parade. This may, it is true, give a false impression if the men have been without necessity kept for a long time waiting in the parade formation, and have thus become tired. In order to avoid this I used to let the battalions wait for me with piled arms, and allowed them not to take up their parade formation until I had arrived. I thus also saw how the duty was carried on. This certainly expended a little more time, but it saved the troops for the fighting exercises.

I may remark in anticipation that I also after each inspection of a battalion required a march-past in another formation. This I used as a kind of solemn conclusion and a sort of compliment to the troops, to whom I then spoke a few words of encouragement. I should have omitted this last march-past only in case I had been altogether displeased with the battalion. But this never happened, for I everywhere found at least industry and goodwill.

The parade and the march-past also form a good test as to whether the troops pay sufficient attention to the regulations.

I used after the first march-past to allow the battalion commander from half to three-quarters of an hour (permitting him to use his discretion as to the distribution and succession of the drills) to dis-

play some movements from the 3d chapter of the drill regulations, with the exception of the 16th section; this I used not to take until the end, when I had sufficiently inverted the battalion by means of the fighting exercises. It was possible to form a sufficiently good opinion in these three-quarters of an hour as to whether the regulations had been thoroughly well drilled into the men, so far as such movements were concerned as could be carried out by the word of command of the battalion commander.

After a short rest I passed on to the fighting exercises.

These I carried out myself, inasmuch as I set the battalion commander some simple problems, against an enemy marked out as a rule by a couple of flags. In working these out the system of command and of direction had to be the same as it would have been in a real action. I allowed no other movements or words of command than those which are in the regulations. The Captains were to receive no more definite instructions before the beginning of the movement than were necessary to enable them to understand the supposed case and the meaning of the flags, or than might have been possible in war. The battalion commander had to remain in that position which he would have occupied in a real action. If a body of troops, who were already engaged so far that no counter-order could have got to them, did anything contrary to the original instructions, I allowed no counter-order to be given to them, but the battalion commander had to accept the fact and accommodate his ulterior dispositions to it. The description of fire (swarm volleys, the range, fire with two or three

sights, the orders as to the number of cartridges to be fired, the pauses in the fire, independent fire or rapid fire) and the formations (whether in swarms, in line or in column, and what columns) were left to the junior officers concerned, who alone were responsible for them, as also for orders to lie down, to run, etc.; these also gave opportunity for me to offer them some hints.

As I set the problems, it was in my power to forbid all strategy which was impossible on the drill ground. I could also prevent the waste of too much time on any single movement, and if one threatened at any time to take too long, I could cut it short by introducing some other idea, such as a cavalry charge, or a change from the offensive to the defensive, etc. Constant practice and a set routine enabled me, in cases where I had worked out my scheme carefully beforehand, to make a battalion solve three or four problems in from three-quarters of an hour to an hour. When therefore from three to five battalions were quartered in the same garrison, from twelve to twenty different tactical questions could be worked out by the same field officers and captains, and I thus gained the opportunity of touching upon every portion of the 4th chapter.

In order to make my meaning clearer I will name some of these problems as examples.

1. A single battalion directly attacks a certain object. (In order to save time, sometimes the action of the first 500 yards was gone through, sometimes that of the last 500.)

2. A single battalion defends an object. (A redoubt, shelter-trenches, or a wood.)

3. A battalion acting as an advanced guard suddenly surprises the enemy ; or

4. Is surprised by him.

5. The battalion has been sent against the enemy's flank, and succeeds in surprising him by getting, in attack formation, within 330 yards of him.

6. The battalion is fighting on the offensive in the centre or on the flank of a brigade, in the first or the second line.

7. The battalion, which forms the last reserve in the centre of an attack, is *côute que côute* to bring about the decision of a fire-fight which is swaying backwards and forwards, and to carry on to a general attack the troops which are already engaged.

8. Reinforcements to the enemy, or a flank attack from him, oblige the battalion to pass from the offensive to the defensive or to retire, and *vice versâ*.

These eight cases alone afford more than twenty combinations which, according to the character of the drill ground, will offer a very great variety of exercises.

Yet more variations may be made by interposing the supposition of a charge by our own or the enemy's cavalry, or by ruling that the battalion commander is out of action. I used to order the latter, either if the battalion commander came at a wrong moment within the effective range of the enemy's fire, or if some of his captains were among the seniors of that rank in the regiment, and I wished to give them an opportunity of showing that they were able to command a battalion.

The inspection of the exercises of a battalion, carried out in this manner, lasted about two hours and a half, and it was possible to inspect at most only 2 battalions in one day, since one cannot keep one's attention fixed upon every detail for longer than this. Of the 12 battalions which made up my division, 5 were in one garrison, 3 in another, 2 in another, while the others were quartered singly; I could thus in nine days (counting a Sunday) inspect the whole of my battalions. It was impossible to enter more closely into the details of the exercises without prolonging the period of inspection to the detriment of the time allotted to instruction, since the afternoons were taken up by the inspection of other points and in moving from garrison to garrison.

Astonishment may perhaps be expressed that all divisional commanders do not inspect after this fashion, since it has been found to be so practical. The reason of this is, that they generally prefer to work their battalions according to the fancy of the General commanding the Army Corps.

But an officer who commands a whole corps cannot give so much time to a single battalion. On an average he can afford only an hour for each battalion, and he must therefore allow the commander of it to show it to him himself.

But if I have really written to you a very old story, and if all divisional commanders inspect their battalions in the manner which I have described above, I can then only say that, in the interests of the army, I am delighted to hear it.

I have often heard the opinion expressed—and

the same has been said in many pamphlets—that our system, which finishes the drill season with an inspection, is in some ways objectionable, since it is impossible for any one to rightly estimate the value of a commanding officer or of his command by the single day or the single hour of inspection, while, if we hold to the system of inspections, the fate of the officers concerned depends upon one lucky or unlucky day. In place of it is suggested the French system of camps, where the superior officers live with their subordinates during the whole period of the training, and are thus able to observe them daily. But this argument is ill-grounded, for the definite opinion which one forms of an officer does not depend upon the one single day of inspection. There are many opportunities during the entire year of seeing him work in front of his men, for instance at regimental and brigade exercises, at field manœuvres, etc., while his character as regards the preservation of discipline can be judged by looking at the defaulters' book; moreover, one may see how he behaves under exceptional circumstances; this is all true, even if we omit to take into account the fact that a commander who is confident of himself and of his men is not dependent upon good or ill luck on the day of inspection. Again, one's opinion of an officer is not definitely made up from the experience of a single year; he has the opportunity during several years of removing any unfavourable impression which may have been formed of him. But if he is placed in a camp of instruction and has to carry out every portion of his training, even the least important, under the eyes of his superiors, and if he thus

feels himself constantly watched and criticised, he will never gain either independence or self-confidence. Past masters in any art do not fall from the skies; every one makes mistakes at first. If he cannot keep these mistakes to himself and thus learn to avoid them, but is obliged to feel them as it were noted against him, he will never acquire any spirit of initiative. In this respect camps of instruction after the French system are not preferable to our system of inspections; I do not mention other evils, inseparable from the former, which have made us hold to our plan of inspections, detachment trainings, and manœuvres.

The sort of inspection which I have proposed is in every way sufficient as a means of forming a well-grounded opinion on the capacity of a battalion commander, and, since he knows that he will be inspected in this manner, it stimulates him to train his command in such a way that his juniors will gain their necessary independence in action, while he himself will get out of the habit of misplaced (and in war impossible) interference, to which the practice of elementary drill will naturally have inclined him. To obtain this end it is necessary only that the inspecting officer shall carry out his inspection with ample kindliness, for the uncertainty in which the officer inspected finds himself as to which movements will be required of him, the feeling of being examined, and the influence which the result of the inspection may have upon his future and his reputation, produce in many officers a restlessness and an embarrassment which obscure their clear judgment; a condition of things which is

commonly called "inspection fever." It is therefore necessary to first quiet this inspection fever before proceeding to form an opinion. A little joke may often help to effect this. I remember a certain very excitable field officer, who was nevertheless very sound and sure, but who at the beginning of an inspection suffered so much from inspection fever that he gave the first simple words of command for the march-past in a trembling voice and all wrong. I rode up to him and said in a low tone: "Major, I have so often seen your battalion drill beautifully under you, that in your place I should feel no fever." He at first stared at me, then laughed, and from that moment worked his battalion faultlessly.

LETTER X

FORMATIONS FOR ATTACK AND FOR FLANK ATTACKS

It still remains for me to discuss some few matters which I only touched upon in my last letter.

I spoke there of "the tendency, well-founded in principle, to develop the effect of flank attacks."

I need not here further discuss the importance of bringing a pressure upon the enemy's flank, since every one knows, and it is strongly brought forward in the regulations, that the defender, since the recent improvements in firearms, can offer an unconquerable resistance against an attack which is directed against his front alone, if only he has sufficient ammunition and his men aim quietly; so long at least as he is not crushed by heavy loss in the front line. But if it be possible to succeed in taking the enemy in flank, then the victory is as good as won. The only question then is, How to take the enemy in flank?

There are but two ways: surprise, or a preponderance of force. A surprise can be carried out, either by assigning different lines of advance to the troops which are directed against the front and the flank of the defenders (this I should feel inclined to call the strategic kind of flank attack), or by skil-

fully making use of folds of the ground or other cover, so as to throw a portion of one's force upon the flank of the foe. But these two kinds of movement against a flank are almost impossible on the drill ground of a battalion, since it would be very difficult to find several lines of advance, while a battalion is too small a body of troops to be divided in accordance with a strategical idea; again, the level drill ground of a battalion seldom affords any possibility of advancing under cover by making use of the character of the ground.

The only kind of flank attack which can be worked out in a natural manner on the drill ground is thus that which depends upon preponderance of strength. We must in that case suppose that the enemy is much weaker than the battalion, and must extend our own front much wider than his, in order to outflank him. As the distance between the opposing forces is lessened in the course of the attack, that part of the extended fighting line which directly meets the enemy will be brought to a halt by the struggle, while the outflanking wing, which is not delayed, will continue to advance and will, if it keeps in contact with the rest of the line of battle, of itself wheel up to attack the flank. On the other hand, even if we assume that we have a superiority in number over the enemy, it will always on the drill ground appear unnatural to detach parties against the enemy's flank, since, owing to the shortness of the distances at which alone it is possible to work there, this movement must be carried out under a most effective fire from the enemy's front.

For this reason I consider that we must banish

from the drill ground of a battalion every other method of attacking a flank, except by out-flanking and by the gradual wheel of the wing which out-flanks, and must thus put off the strategical method, and also that of surprise by skilfully making use of ground, to the period of the field manœuvres and the exercises in field service. How can we suppose a surprise to take place on the drill ground? Such a supposition lies too open to the repartee: "But suppose the enemy refuse to be surprised?" Only a real enemy, such as we have at the manœuvres, can really be surprised, and if he does actually let himself be surprised, then we may consider the effect of an attack on his flank as a direct consequence. Again, the regulations lay down that on the drill ground all the fighting formations are to be practised without taking account of the nature of the ground. If then a battalion commander sends out a company on the open and level drill ground against the flank of a supposed or skeleton enemy, he can only make such a movement appear in any way possible in war, if he first fully explains to his battalion what is the character and the position of the particular piece of ground, which will enable an approach under cover to surprise the enemy; but in any case all this will be utterly unreal.

Another question which I just glanced at was how, considering the improvement of firearms, one ought to attack a locality (say a village, a wood, or a position), over a plain which gives no cover, or over open rising ground, and also what formations should be used for this purpose. I have already mentioned how many people after the last war busied them-

selves about this question in speech, in writing, and in experiments at the manœuvres. But all the suggestions which have been made have found more opponents than friends, and we have arrived at no definite result, though everybody was interested in it, and above all the Guard Corps, on account of the enormous losses which it incurred on the bare slope in front of the position of St. Privat. Even the regulations do not lay down any distinct instructions on this point, but only hint in a general sort of way (para. 127, p. 190) that the effect of the enemy's fire should be diminished by using the regulation formations both at the halt and when in movement, and order that, as a rule, formations when under shrapnel or shell fire shall be as shallow as possible, while, when under the fire of case, they shall be in small columns of narrow front, and that the men, especially when under musketry fire, shall lie down. As regards the manner of using these, the regulations leave the very greatest liberty to those who have had experience in war and have thought over such matters.

One would be certainly justified in saying that, generally speaking, one would not make a frontal attack on a position or a village, etc., over open level ground or up a bare slope. One would occupy the enemy with artillery fire, and attack at some point where the ground favoured an approach, or else one would turn the position. We should always do so, if we had the choice. But we have not always the choice. It may very well happen that a body of infantry, working in combination with other troops to the right and left of them, who have chanced on

more favourable ground, absolutely *must* advance over the open. In such a case are they to say, when they receive the order to advance, that they cannot do it, *i.e.* that they do not mean to obey? The only question for them is, *how* are they to advance so as to diminish as much as possible the effect of the fire of the enemy? The regulations give no distinct instructions on this subject, above all, as to the case when this open ground is swept simultaneously by shell, shrapnel, case, and infantry fire.

We must look back upon our war experiences if we wish to form for ourselves a decided opinion as to how we should proceed in such cases.

In the battle of St. Privat the infantry of the Guard Corps, as they advanced to the attack of the position, moved out of the cover afforded by the hollow which runs on the West of Ste. Marie from North to South. Formed as they still were in battalion columns, they were surprised by a very hot infantry fire at a range at which up to that time small arms had been considered to be ineffective. The infantry certainly continued to advance, but the fearful losses, which continually increased, loosened the columns and broke up the system of command, so that, when the violence of the enemy's fire had brought the advance to a standstill, the leading troops of the attack were in swarms, which were lying down at from 500 to 600 paces from the long wall round the village, and were answering the enemy's fire. The foremost line of the infantry of the XII. Army Corps prolonged the front of the skirmishers of the infantry of the Guard to the left. Such infantry of the defenders as had been pushed

forward on the bare slope had drawn back into the position, and were also, between St. Privat and Amanvillers, driven from the front crest. While part of the artillery of the attack occupied this crest, the other batteries advanced closer to the infantry, and assisted them with their concentrated fire, of which, at this short range, no shell missed. The left wing of the XII. Corps also advanced from Roncourt on St. Privat, and the assailants were thus almost in a half-circle around the village.

One of our infantry Generals, who was directing the combat in the foremost fighting line, remarked that the fire of the defenders from the loopholed walls of the gardens which lay around the village was almost silenced, and turned to his aide-de-camp with the words: "Now, get on, or we shall never take the village!" The aides-de-camp were about to ride off to carry the order in all directions, when the whole of the foremost skirmishing line, Guard Corps and XII. Corps, seized with the same idea, sprang up as if an order had been conveyed by electricity, and ran in cheering on the village. This last rush, which captured the long walls about the village, cost but little loss, since it would seem that their defenders had retired into the interior of the place. It was not until we reached the houses of the village that the fight began again; it lasted some time in a hand-to-hand struggle, probably with the reserves, who were endeavouring to replace those defenders of the outer garden walls who had fallen back. This, at least, was as it appeared to me from my artillery line on the right of St. Privat. I also, on the morning after the battle, which continued

after nightfall, found numbers of our dead and wounded lying over the whole field, from Ste. Marie in the direction of St. Privat. These signs of the murderous struggle increased until, at a range of from 500 to 600 paces, they lay in whole ranks in a half-circle around St. Privat. Very few lay nearer than this to the village. Some of our comrades of the infantry judged from this fact that the French rifles shot too high, and that they had fired over our soldiers when they got near. But this was not the real reason. Our infantry had suffered the heaviest loss in that line, in which they had remained longest answering the enemy's fire, and had for their last rush up to the walls skilfully chosen the very moment at which the fire of the defenders was almost altogether silenced.

I have already related to you an episode of the battle of Sedan, which proved how invincible infantry are against a frontal attack, if they are unbroken, fire quietly, and have plenty of ammunition. They must therefore be broken, either by pressure on the flanks, or by fire, before one enters within their zone of effective fire.

In the battle of Sedan our attacks were carried out in accordance with this principle, which we had learned by experience. That same infantry of the Guard (though certainly other battalions) which had made the attack on St. Privat, at Sedan a fortnight later captured the Bois de la Garenne. I was standing with 90 guns of the artillery of the Guard on the edge of the valley to the East of Givonne; the line extended as far as opposite to Daigny. The enemy's artillery fire had been entirely silenced,

and General von Pape determined to carry the Bois de la Garenne. He talked the matter over with me, and decided that I should continue to fire for a certain time, and that he, at a fixed hour (we compared our watches), should advance from Givonne; on this I was to cease my fire, which might else be a source of danger to his infantry. Everything was carried out exactly as we agreed. The infantry of the Guard (Jägers and Fusiliers) climbed up the hill, after my 90 guns had brought a murderous fire to bear upon the wood from a short range (the distance varied from 1200 to 1600 paces), and seized the *lisière*. They captured more than 10,000 unwounded prisoners. The Fusiliers and Jägers of the Guard lost in the whole battle of Sedan only 12 officers and 216 men, and of this loss only a small proportion was due to the attack on the wood, for these same troops had already taken Givonne, and, moreover, after this suffered some loss in the interior of the wood. In the battle of St. Privat the infantry of the Guard lost 8000 men. But this attack on the Bois de la Garenne cannot altogether be compared with that on St. Privat, since the deep and steep valley of the Givonne allowed our men to approach unobserved to within a few hundred paces of the Bois de la Garenne, while in front of St. Privat lay a regular glacis which extended for a mile and more.

I saw another attack on a village which had more resemblance to that on St. Privat. This was the storming of Le Bourget on the 30th of October 1870. The column of the left wing (the Alexander regiment and the Rifles of the Guard), accompanied

by two batteries, advanced from Le Blanc Mesnil against the village. The artillery, which at last stood quite near to the village, prepared the attack. The artillery and infantry fire drove the defenders from the edge, and the swarms of skirmishers reached it almost without loss, especially at the South end of Le Bourget. Indeed, there was not much loss, except in the house-to-house fighting in the village. The attack which the right wing carried out, between Dugny and Le Blanc Mesnil, was yet more instructive with reference to the attack formation, since at this point the infantry attacked without the assistance of artillery. For the flank fire which the horse artillery brought to bear upon the West edge, from their position to the North of Pont-Iblon, could have produced but little effect on account of the length of the range. At this point there were 2 battalions of the "Franz" regiment who had to attack over 2000 paces of open ground. The officer commanding this regiment had already practised it in the attack. In accordance with his practice he sent forward the whole of the leading line, which consisted of two companies, in thick swarms of skirmishers, and made them advance over the open ground in two parts (by wings) which alternately ran in 300 paces. After each rush, the whole of the wing which made it, threw itself down, and found some cover among the high potatoes; there they recovered their breath while the other wing rushed in. As soon as they arrived within the range of the needle-gun, the wing which was lying down opened a fire of skirmishers on that edge of the village which they were attacking.

I can still remember, as I write, the delight which we felt as from our position we watched this attack which had been so carefully thought out, and was so well carried through. The best of the thing was that, as the commander of the regiment assured me, these troops suffered no loss up to the time when they reached the edge of the village. It was not until the street fighting began that the regiment endured the losses which it had to deplore on that day.

If I imagine myself posted on the edge which was held by the defenders, I can easily picture to myself the embarrassment in which the French skirmishers found themselves as to how to meet this unwonted formation for attack. As soon as the leading swarms of the advance were seen they were, of course, fired on. All at once they disappeared from sight among the potatoes. When and whether the defenders now observed that another line of hostile skirmishers was running up is doubtful, for the smoke of their own rapid fire hung about the hedges and walls, through loopholes in which they were firing. Since the communications at the edge of a village cannot always run in a straight line, it would be impossible at the exact instant to direct all the defenders to aim at once at the new enemy, and when this had at last been done, the latter may perhaps have completed their stage and may have disappeared also in the potatoes; this may not have been observed owing to the smoke, which may further have concealed the fact that the first section had again started to run. The two lines of skirmishers thus succeeded in getting so near that the

fire of the needle-gun became efficient. One of them then overwhelmed the circuit of the village with fire, and thus drew the attention and the fire of the enemy upon itself, which very much facilitated a fresh advance of the other. It appears to me, when I consider the matter, quite natural that the defenders should have been surprised, in spite of the open ground, and should have been driven from the edge by our skirmishers as they rushed in with a cheer. It is certainly true that on that day the troops of the defenders were not as good as ours, for they consisted of the marine infantry, infantry pensioners, *gardes mobiles*, and *franc-tireurs* of the press; but later on, in the street fighting, they resisted with great pertinacity. Moreover, I do not know which of these bodies of troops was posted at the edge of the village.

With regard to the formation of the assailants I must add that the two lines which followed the skirmishers (the second of these being also formed in two lines) did so at a quiet pace in rear of the centre; they were in line, as far as I could see, but with intervals between the files, in order not to offer a compact target to any accidental shots; they thus looked like thick skirmishing lines.

Even though the attack on Le Bourget from this side succeeded without any powerful assistance from artillery, you will probably own that I am right in principle when I say that, as a rule, a frontal attack on such an object over a wide and open space will not have any prospect of success unless it be supported by artillery.

With reference to this question I have read an

account of what seems to me an ideal attack on a village. It is to be found, briefly related, on page 61 of the 14th section of the official account (translation). The "Annual for the Army and Navy," in the number for March 1872, relates in detail the arrangements for and the conduct of this action. According to this, General von Tresckow, in the battle of Beaugency-Cravant on the 10th December 1870, finding that Villejouan threatened his right flank, and that he could not leave it in the hands of the enemy during the following night, directed first a heavy fire of artillery upon it. Two batteries were especially told off to fire on that village, and threw shells into it for an hour.

Under this fire a part of the defenders appeared to have drawn back into the interior of the village. The infantry (the 76th Fusiliers) had orders to approach the place in such a manner as not to mask the fire of the guns. They thus advanced without firing until they were about 200 paces from it; the enemy then opened fire. They at once rushed with a cheer into the village. The few defenders who had remained at the edge were overwhelmed, but the greater part of the garrison must have fallen back, since the battalion in the action, including street fighting from noon until the evening, lost only 4 officers and 88 men. The surprise of the defenders much facilitated the victory of the Fusiliers.

The battalion was formed in two lines. In the first were the 10th and 11th companies, two sections of each being extended as a firing line. The 9th and the 12th companies were in the second line. The second line followed at first as a half-battalion

in rear of the centre, but when the first had penetrated at the eastern edge, it turned to the right towards the northern entrance and burst in there. An attack must in future be, as a rule, made in this manner; but since we have now a rifle which will throw as far as that of the enemy, we shall be able to combine the effective fire of our skirmishers with that of the artillery in order to drive away the defenders from the edge, and we shall thus, even if the enemy is not sufficiently broken up by the artillery fire, be able to carry out our task with yet greater certainty.

If the enemy be entirely driven away from the edge of the village, it is a matter of no importance in what formation the infantry approach it. But if the artillery fire does not suffice to destroy or to drive away the enemy who are posted on the edge, and if thus the assistance of the infantry becomes necessary, then we may learn from the success of the "Franz" regiment in what formation the infantry can and must advance up to the spot at which they will themselves commence firing; this will be a strong firing line. The supports which follow will do best if they take up a line formation, and there is nothing in the regulations which forbids them, if the infantry fire of the defenders is still very effective, to open out their files to an interval of the breadth of a man, in order that they may not offer to stray bullets a target which cannot be missed. The second line will certainly be able to follow in a closed line, so long as it is not necessary to push it forward to take part in the attack. I propose this formation for use in the case of bare level ground only. In

every instance where the least cover can be found, that portion of the troops which is moving over the ground where the cover stands must obviously be formed in such columns as will enable it to make full use of its protection.

LETTER XI

THE ATTACK OVER OPEN AND LEVEL GROUND

In order to satisfy your wish, I will endeavour to present to you a detailed picture of how I consider the attack of a village over open ground, carried out by infantry in combination with artillery, should be worked out. It is, however, always somewhat misleading to attempt to lay down any detailed instructions for such an enterprise, since in special cases some modification must invariably be made, while in exceptional instances all such rules may be altogether falsified.

In order to do what you wish, it will be necessary to compare the real effect produced by infantry and artillery respectively. I must further premise that the results of target practice in peace may tempt us to trust great fallacies. For when fighting in earnest matters take quite another form. In the first place, the ignorance of the range materially affects the value of fire, especially as regards infantry at ranges at which the trajectory of the bullet is above the height of a man. It is certainly laid down that the range is to be tested, but even at known ranges and in peace the observation of infantry fire is very untrustworthy, while in war it is quite impossible,

owing to the enemy's smoke. Again, when acting on the offensive the ranges cannot, as a rule, be known unless (as was the case at Le Bourget) the locality is familiar. But even then the effect of the fire is uncertain, since the force of the powder is different on wet and dry days. I have known the difference thus caused to be as much as one-tenth of the range. The effect of the artillery will not, as a whole, suffer so much from this fact as will that of the infantry, for it is much easier to see and observe bursting shell than bullets, while they afford the best possible guidance as to how the guns must be worked in order to compensate for the influence of the weather on the impulsive force of the powder.

I once succeeded, by making an arrangement with some artillery who were carrying out their practice, in giving both arms some idea as to the proportional effect of the fire of each, at ranges which for the infantry were long, but which were unknown to either; with this object I made the infantry and the artillery carry out their practice from the same spot at the same targets. A battery of 6 guns fired first at a target representing a company extended in skirmishing order, and then on one representing 6 guns. A company of infantry fired at the same time, at the same targets but in reverse order. The range was unknown to the troops, and was between 1100 and 1200 yards. The elevation and the description of fire (in the case of the artillery the nature of projectile also) were left entirely to the discretion of the Captains. The result was very striking. The battery obtained 30 times as many hits on the infantry target, and 100 times as many

on the artillery target as the infantry. Care was taken, as this is a most important point, that the time during which the fire continued, the expense and the total weight of ammunition were the same for both arms. From this practice I drew the conclusion that we should in war commit a fault leading to a colossal waste of ammunition, by allowing infantry to open fire at from 1100 to 1200 yards, if there were by any chance artillery available for the desired duty.

If we suppose a combat of infantry against artillery, the result will be yet more favourable to the latter, since the number of rifles will diminish as it goes on owing to the losses of the infantry, while the artillery will still have all 6 guns in action, even though some of the men and horses have fallen.

The result will be quite the other way as soon as the troops get nearer to the target. The effect of the fire of artillery does not increase at ranges shorter than 1100 or 1200 yards, since this is the distance at which every shot tells and their effect is annihilating. On the other hand, the effect of the fire of infantry increases at every step which brings them nearer to their target.

It follows from what has been said above that the effect of infantry fire first bears comparison with that of artillery at a range of 500 yards, and will not be equal to it before between 330 and 220 yards.

If we take into account the excitement of action the comparison will be yet more unfavourable for the infantry, since this excitement will make the hand shake which holds the rifle, while the gun feels nothing of it. It is certainly true that this excite-

ment affects the sight of many a laying number, and leads also to other mistakes in the service of the guns. Some batteries which fought very long and very bravely at the battle of Königgrätz, noticed that after a long-continued fire their guns shot from 300 to 400 paces too short, and this fact they attributed to the fouling of the bore by the enormous expenditure of ammunition. Our experts puzzled their brains over this fact, for in the trials which had been made in peace as to the effects of the duration of fire no such result had been observed; or, if it had, it was of so small extent as to be not worth mention, and had certainly never been so marked. I strongly suspect that the laying numbers, in the excitement of the action, did not look to their tangent scales after each shot, and that these slipped down owing to the shake given by the discharge. We noticed no such effect of the fouling of the bore in my batteries. But I certainly observed in them also that, when the effect of the enemy's shell became very severe, the guns were very badly laid and were even fired without being laid; and I had to take very strong measures in order to reintroduce a quiet and regular service of the guns. This is possible in the case of artillery, but in the case of infantry the aiming of the men, especially in a hot action, is almost entirely beyond control.

The considerations which I have mentioned appear to me to be the ground on which the regulations, of the 1st of March 1876, lay down that infantry fire is not to be permitted at a greater range than 550 yards, except against large targets, such as columns, etc. If, at a later date, there have been some

modifications which make the ranges and the nature of fire to be used dependent upon the rules laid down in the musketry instructions, this has probably been caused by the fact that it was considered desirable to accept in principle the use of longer ranges as soon as any improvements in firearms should render this necessary. But up to the present the improvement in the range and accuracy of rifles has not been so great as to necessitate any change in principle. I do not, therefore, think that I shall be wrong if I lay down the range at which infantry, which is supported by artillery, should open fire against the edge of the village as not normally more than 550 yards. It is, moreover, very desirable that the infantry should not open fire too soon, for if they do there will be some danger that they will find themselves without cartridges at the most critical moment.

In speaking of such an attack as I am now about to describe, it must always be supposed that the defender will equally be supported by artillery. In that case the combat will, and must begin by a duel between the artillery of the attack and that of the defence. When the former has succeeded in overcoming the latter, which will take place at longer ranges than those of which we have been speaking, it will then first turn its fire against the edge of the village which is to be attacked, and will certainly, in order to produce the greatest possible effect upon it, advance as near to it as it can, that is to say, as near as the range of the enemy's infantry fire will permit. The effect of the latter may, judging by the present position of technical improvements, be considered to

be almost nil at 1700 yards. The artillery will, therefore, select a position at from 1700 to 2200 yards from the enemy for the purpose of firing on the edge of the village.

In the meantime the infantry will have advanced to within 550 yards of the village, carefully avoiding any chance of masking the fire of the artillery, in order that the latter may cover their advance; at 550 yards the attacking line of skirmishers will combine their fire with that of the artillery. Then under cover of the infantry the guns will be pushed in to the decisive and annihilating range of from 1100 to 1200 yards. If the artillery consists of more than one battery, it will accompany the infantry up to the last moment of the attack, advancing by echelons, so that half of it will always be in action as the other half moves, in order that the fire on the edge of the village may be unremitting.

Are you astonished that I, a gunner, should suggest that the artillery should push in to within 1100 or 1200 yards of a village which is occupied by infantry, especially in these days when shrapnel are effective at 3300 yards, and the effect of fire is already murderous at 2200 yards? But I recommend this close approach, not only as a gunner, but more especially as an infantry man. In the first place, the observation and correction of fire is very difficult at 2200 yards, and at this range the effect of fire is always somewhat uncertain. For this reason every gunner must wish to be able to get in closer. So much for the gunner. But the infantry man will desire that the artillery shall support his

attack up to the moment of his final charge. But this the artillery cannot do if it remains at a range of 2200 yards. For at such a range it is difficult, when the combatants approach each other, to tell friends from foes. In this case, badly aimed shell or premature shrapnel may injure our own infantry. The artillery must, therefore, cease firing when their own infantry is within 550 yards of the object of attack. Instead of doing so it would be better that they should advance. At a range of 1100 or 1200 yards they can go on firing confidently until the infantry make their last rush, for at such a short distance they can be so sure of their shots that they can avoid any possible accident. It is, besides, not very encouraging to the infantry, that their artillery should remain at a distance of a mile from the enemy, while they themselves go in until they can see the whites of their eyes. There is something very encouraging and comforting to the infantry when, at such critical moments, they hear their own guns thundering close at hand. Only those who have heard the cheers, with which, at such moments, the infantry receive the batteries, can fully form an opinion as to the moral influence which artillery fire exercises on its own infantry.

You will perhaps object that artillery can no longer advance to within 1100 or 1200 yards of a village which is occupied by an enemy, since the infantry, strong in their confidence in their new rifle, would at such a range destroy the batteries; I have indeed myself just advised that the first position taken up against the village should be beyond the reach of a rifle. But I can state from experience

that infantry fire at these ranges is not annihilating. The old soldier's song is quite right when it says, "It is not every bullet which hits," and is fully confirmed, if we compare the number of killed and wounded with that of the bullets fired. I stood with my batteries in position before St. Privat from 2 P.M. to 5 P.M., while in front of us at a range of from 900 to 1000 paces swarms of infantry lay in the ridges of the fields; the foremost line consisted of 3 battalions, and the second and third were of about the same strength; all three lines fired at our batteries alone. We certainly suffered very considerable loss, but during the whole three hours not one of our guns ceased its fire for a single moment on account of the fire of the infantry. When it did happen that a gun was for a time silenced, this was due to the artillery fire which broke up a wheel or some other thing. And when, between 5 and 6 o'clock, we had to go forward with the infantry, only 3 guns out of 84 had to remain behind for a time because they needed some repair. All other damage had been repaired in position under the infantry fire. Again the losses caused by infantry fire will always be considerably diminished if the enemy's infantry be under a heavy fire from our skirmishers; they will then be compelled to turn their fire principally upon the latter. For this reason I advised that the batteries should be kept beyond the effective range of the enemy's infantry fire until we are in a position to reply vigorously with the fire of our own infantry.

The war of 1870-71 has entirely done away with the old prejudice that artillery must avoid the zone of infantry fire. I cannot see at all why gunners

should be less exposed to danger than infantry. Moreover, as a matter of fact, they never are so much exposed as the latter. If you count the number of men on a front of 120 paces, which is what a battery occupies, you will see that the skirmishers of a strong firing line stand much closer, and thus suffer more loss than the gunners. But those bullets of the enemy which hit the guns, limbers, horses, etc., and which count as hits at peace practice, inflict no loss on the men and do not affect their morale. For this reason artillery also can, if it be necessary, expose themselves to infantry fire.

Why then do I not rather propose that the artillery should go in with the infantry to close fighting at a range of 550 yards? I do not do so owing to the fact that it is not always possible to avoid the necessity that artillery must fire over their own infantry. This can be done without danger if the latter stand under the highest point of the trajectory of the shell, but is impossible if they are just in front of the guns or are within 100 paces of their muzzles. In spite of every improvement of our *matériel* it will now and then happen that a shell bursts in the bore and acts as case-shot. When we were bombarding Montmédy I stood straight in front of my field batteries, at a distance of from 800 to 900 paces. Several shell broke up, and I saw the splinters strike about 200 paces from us. At a distance of 660 yards one is therefore safe from any accident. It is thus desirable, for the sake of the infantry, that the artillery should remain 660 yards in rear of that point where the former will halt for some time for the purpose of opening fire.

When the artillery occupies a position at a range of 1100 or 1200 yards from the enemy there is no need for them to cease firing when the last rush takes place; if they did so they would indeed by their silence inform the enemy's reserves in the interior of the village that a new phase of the fight was commencing. On the contrary they can, when the foremost line of their infantry charges in with a cheer, throw one or two salvos of shrapnel with the greatest ease into the centre of the village, and thus annoy the reserves, without running any danger of hitting friend as well as foe, since our men cannot penetrate so far until after some little time. It is indeed of the greatest importance that the artillery should continue to fire until the assault on the edge of the village has succeeded; unless it does so there is some risk that the whole of the preparation by fire will be of no use. We certainly had the luck at Sedan to take the Bois de la Garenne, though we ceased firing before the infantry advanced. But later on I met with a case where an attack on a village failed, though we had kept up such a hot fire on the edge that the defenders had moved off to the flanks and had hidden themselves. The artillery then ceased firing, having been ordered not to fire over their own troops; after this the infantry advanced. They found all the defenders back again at their posts. The attack failed three consecutive times. You must excuse my not mentioning the date of this action, since to do so would be tantamount to holding the commander up to blame, which I should be sorry to do, as in spite of this I valued him greatly

So much for the support which infantry, when attacking a village, has a right to expect from artillery. The former must, however, take care that it does not in its approach mask the latter and interrupt its fire.

We will now discuss the special duty of the infantry. I think that, if the ground is open (and we have taken it for granted that it will be necessary to pass over open and level ground), they must extend for attack before they pass the position of the artillery, which the latter will have selected at between 1700 and 2200 yards from the village. They will extend strong swarms of skirmishers (at least two sections per company), and the supports will follow these in line with open intervals. The second line will follow in the same formation as the supports, for I assume that the enemy's artillery has been silenced. It is scarcely necessary to say that the supports of the first line and the companies of the second line will not open out their files until they come within reach of chance shots from the edge held by the enemy. It would moreover be advantageous to arrange that the companies of the second line should overlap the flanks of the first. I need not perhaps have mentioned this, as the regulations prescribe it. But I find that, as a rule, the very opposite is done, especially when a single battalion is engaged, for the battalions are very much inclined to adopt the type given in paras. 85 and 87 of the regulations, and to push forward their flank companies, leaving the centre companies to follow in rear of the centre, where they form a butt for the enemy's bullets.

It should also be laid down that, as is permitted by the regulations, if the artillery has found room on one flank of the infantry (say, the inner flank), the supports and the companies of the second line should follow in echelon on the outer flank; for the artillery by its fire secures the inner flank of the line from surprise, and further has more effect upon that part of the edge of the village which stands opposite to the inner flank than it has on the other, so that the assailant will need greater strength on the outer flank.

With regard to the distance of the supports and the second line from the skirmishers, the regulations merely mention the subject; but they order that it shall be modified according to the nature of the ground, and lay down that it shall be greater in open ground, while they give it as desirable that it should be as small as possible whenever it is practicable to make use of cover. Since I am now speaking of an advance over quite open country, we can take it that the distances should be as great as possible. If they be taken at 220 yards the supports, if they are echeloned outwards, can fire volleys directly on the flank of any attack which is directed against the flank of the skirmishing line. If we hold to this distance then, when the skirmishers commence firing at 550 yards, the supports will be at 770, and the companies of the second line at 990 yards from the enemy, and there, if they lie down, will not be exposed to very serious loss.

It cannot be too distinctly laid down—though it will seldom be done in peace, and will thus generally be neglected in war, from want of habit—that the

infantry, as they pass by their artillery which is in action, should inquire from them what they have found the range to be. For much as we may practise judging distance, we shall be very much deceived by varying light and weather, while it is only natural that men should judge the enemy who is firing at them to be nearer than he is. I must here tell you of some errors which I, and not I alone, have made. When at Königgrätz, after passing the Trotinka, I led my batteries through Jericek into their first position, and rode to the front to select it, the officer commanding the brigade and the officers commanding batteries, as we looked over the table-land, agreed with me that the range to the Austrian guns which were firing from the now historical wooded hill in rear of Horenowes was 2500 paces. The first shell which we fired taught us that the range was much greater than this, and when after the fourth shell we found that we scarcely reached the enemy with an elevation of 4000 paces, I advanced half this distance to the next undulation. Artillery can more easily correct their fire than can infantry, since, as I have already remarked, it is almost impossible for the latter, when firing at long ranges, to observe the fall of their bullets, if the enemy is firing in return.

Errors occur in the other direction also, especially when an expanse of snow between us and the enemy blinds our eyes. During a slight reconnaissance action near Nübel, on the morning of the 10th February 1864, I, with a small group of ten to twelve horsemen, stood for a long time in front of a house, on the wall of which bullets kept on striking above

our heads; these were fired at us from a clump of trees by a flanking party of three men of the enemy. We wondered at the range of the Danish rifles, for after talking it over we judged the range at 800 paces. When the enemy had been driven out we had the distance paced. It was 240 paces. The enemy must have made a similar mistake, for he shot steadily too high. It is evident that such errors must make the whole of our fire ineffective, for it can have no other result than to increase the confidence of the enemy. But when one has once obtained data, founded upon reality, by which to check one's own moral condition and the effects of light, one seldom makes much of an error in the unconscious and instinctive comparison of other ranges. All attempts to get over this difficulty by means of range-finders have up to the present time been foiled by the excitement of action and the rapid changes in the circumstances of a combat. The fire of artillery continues to be the best and the quickest range-finder, and this is the more true, since it, as I have before said, takes practically into account the varying influence of the weather on the power of the powder.

If the fire of the artillery has been sufficiently strongly worked against the edge of the village, I do not think that the chain of skirmishers need run until they arrive at the first offensive position, at a range of 550 yards, from which they intend to open fire. It is a question whether the defenders of the edge will not be so occupied in getting cover from the shrapnel bullets and splinters of shell which will be falling on them, that they will fail altogether to notice the approach of the skirmishers; and even if

they do see them, how many of the defenders will have the courage to put their heads out from under cover for the purpose of firing. It is even possible —and it was the case at Villejouan—that the assailants may get much nearer than 550 yards to the village without firing a shot. This they naturally must, and will, do if it is in any way possible. They must be warned beforehand with regard to this point, for when once they are engaged, none of the superior officers have any more power over the skirmishers. This is then the duty of officers who lead them. It must be urged upon them that under all circumstances they are not to run, except under the most urgent necessity, since running heats the blood, and therefore affects the shooting. I do not ask too much from a firing line, when I say that they should advance at a quiet pace, even when they are under fire, always supposing that this fire is not too deadly. In the battle of Fridericia on the 8th of March 1864, I saw our skirmishers advance over marshy ground. The enemy's infantry bullets, fired at a long range, fell among them. They looked astonished, judged the distance, laughed, shook their heads, and quietly continued to advance slowly over the heavy ground, which made it impossible to run. If it can be so managed, the men should not be allowed to run, until they begin the final charge with the bayonet. In any case, if the attack is supported by artillery, it must be absolutely forbidden that the infantry fire shall commence at a greater range than 550 yards; otherwise ammunition will fail when it comes to close fighting. For it is surprising how fast troops fire away all their cartridges, while any

renewal of ammunition, in a combat in open ground, is not to be counted upon under any circumstances, from the moment when the infantry fight begins at 550 yards up to the final hand-to-hand struggle.

All the suggestions which have been made with respect to the supply of ammunition are impracticable at this phase of the action. They may work when the fire is at long ranges, during pauses in the action, or when the troops are on the defensive. Thus, in the fight which I have mentioned at Villejouan, the troops were supplied with fresh ammunition by the ammunition wagons after the village had been taken, and when the companies were fighting on the defensive against the attacking masses of the enemy. Thus also, at Beaune la Rolande, the men carried up cartridges to the defenders of the place in their helmets. But if a firing line, which is attacking over open ground, runs short of cartridges at a distance of 100 or 200 yards from the enemy, any renewal of ammunition is for the moment impossible. No ammunition cart can reach them, no man laden with a bag of cartridges can get up to them. And even if some man had the pluck to attempt it, and the luck to get through, of what use would 500 cartridges be to a company? They would give about three shots per man; and besides, how are they to be distributed?

If the firing line notices from their first position that they have obtained some success against the enemy (which will be shown either by the diminution or the cessation of his fire), they may advance towards the edge of the village, either in one body, charging over the whole or only the latter part of

the distance, or by rushes with pauses, during which they will open fire anew, while these rushes may either be made by the whole line, or by successive fractions, of which one will fire as the other advances. The choice as to which of these plans is to be employed will depend upon the degree of steadiness of the enemy's fire. This fire must in any case, if the attack is to succeed, be much weakened and shaken, if not altogether silenced, before the advance takes place.

LETTER XII

THE ADVANCE BY RUSHES; THE REGULATION OF FIRE; AND THE RENEWAL OF AMMUNITION

I WAS prepared for your reproach, that I had in my last letter treated too summarily both the last phase of the attack on a village and of the renewal of ammunition, while I had passed over in silence the case in which the infantry attack was not supported by artillery. But you must not suppose that I wish to avoid these important questions. On the contrary, I propose to devote a special letter to them, since my last was, even as it was, far too long.

The operation of getting over the last 550 yards before the actual penetration into the village is, indisputably, the most difficult of the whole attack. The simplest form in which this task can be carried out is to shout: "Rise! Charge! Charge! Hurrah!" while the officer who gives these words of command rushes on in front. If he reaches the village, he has performed a heroic act; if he does not reach it, he remains on the field of honour and has given his blood. This is very fine, and at least preserves the holiest thing he has, his honour. Moreover, it is in accordance with the nature of the human heart, and with the moral condition of men, who have suffered

severe losses in a long fire-fight, and who long for some end to this crisis. They know that they are just as certain to be killed if they get up and run away, as if they charge in, and that in the latter case they will at least be able to avenge their fallen comrades. But experience teaches us that when this decision is made at the wrong time it is not successful, and that such attacks lead to the destruction of the assailant, for example, the French attacks at Sedan (of which I can speak as an eyewitness), and the numerous attacks on Beaune la Rolande. Moreover, a charge over 550 yards so wearies the strength of the men, that they arrive almost powerless at the edge of the village, and need a certain amount of time to recover their breath before they can be of any use in a hand-to-hand fight. So long a charge is justifiable only in the case when you can see that the edge is as good as abandoned, and when you may hope to be able to make use of this favourable moment to occupy it. Under other circumstances this moment must be brought about by the effect of our fire.

What sort of fire should be used at 550 yards? is a question which has received very different answers. There was a time when, at exercises and manœuvres, swarm volleys were preferred; and these were often fired with two sights.[1] In war, I think, the voice of the Lieutenant, which will have already been much tried, will soon give way, and I should therefore reserve swarm volleys for moments when masses of the enemy are seen; for example, supports, advanc-

[1] "Mit zwei Visiren." This expression means that half of the unit fire with (say) the 400 yards sight and half with 450.—*N. L. W.*

ing through the street of a village, or along the edge. The officer will then commence by stopping the fire of his men by means of his shrill whistle, thus attracting their attention, and will after this be able to give the word for a swarm volley.[1] But the moments in action which afford any opportunity for this are rare and short, and if in other cases, that is to say as a rule, it is possible to order the number of cartridges to be used, and to see that order strictly observed, we may be very well pleased with our fire discipline. For when once the fight has grown hot, it requires immense self-command not to return fire, when a man is being fired at, especially when he has already been firing. A soldier who was reproved for not having obeyed the order to cease firing, excused himself by saying: "Sir, that fellow over there shot at you; I was obliged to give him one." But if the officers wish to observe the effect of the fire, and to be able to see whether the enemy holding the edge of the village is giving way, they must insist upon such pauses in the fire, since the smoke which lies before a rapidly firing line of skirmishers sometimes limits the view to an extraordinary degree. I do not hold with using two sights when firing on the edge of a village at 550 yards. It diminishes the effect by a half, and has but a very doubtful value against the enemy in the interior of the village.

[1] If indeed it be possible to stop independent fire at such short ranges by means of the whistle, and to have recourse to swarm volleys. If this be not possible when fighting at ranges under 550 yards, swarm volleys must be altogether abandoned, and we must be well satisfied if the officer commanding the section succeeds, by means of his whistle, in attracting the attention of the skirmishers, and in directing it, by a motion of his sword, to the masses which have just appeared.

The plan might be used against an enemy advancing over open ground and formed in several lines, though it will always be very difficult, if the fire is hot, to control the fire at this range, and to see that the various men use the sights which have been ordered; especially since the word of command itself is a very long one and is easily misunderstood in the noise of battle. If care has been taken to obtain beforehand from the artillery some information as to the range which they have found, no very great mistakes can be made in a range of 400 or 500 yards, while the edge of the village is kept better under fire if only one sight be used.

If the fire from the edge of the village ceases partially or altogether, or if it is considerably weakened, the men will rise at the word of the officer, in order to run in. If the enemy has not given way altogether for the moment, and if his men are only for a while thinking more of cover than of the effect of their fire, this fire will soon become more lively again, and the officer will be compelled to order his skirmishers to lie down and reopen fire, in order to complete the moral and physical destruction of the enemy. From this results the advance by rushes (para. 102 of the regulations); since it is often unavoidable, the regulations have adopted it and ordered it to be practised. Many curious ideas have prevailed at one time or another with regard to this advance by rushes. The system that a part of the firing line shall remain lying down, and shall keep up a fire on the enemy, is entirely correct. But when, in peace exercises, the battalion commander is heard to give the order "The 1st

company will rush!" and "The 4th company will rush!" we are compelled to acknowledge that in this case a system is carried out which would be impossible in war, since the battalion commander cannot ride so close to the fighting line that the latter can hear his voice, while, if the skirmishers are accustomed to wait for this word of command, they may in a real action wait a long time for it. The only thing that the battalion commanders can do with reference to this matter, is to instruct their companies, as they extend, and before they come into the zone of effective fire, from which flank the advance by rushes is to be carried out. But even this cannot always be laid down beforehand.

I have seen still more unpractical advances by rushes practised. I have seen the firing line divided into three parts, of which first one, then the second, and at last the third ran forward. This is opposed to the moral impulse of good troops; since when a part of the skirmishers has taken up its position near to the enemy and has opened fire, honour and comradeship compel all the other skirmishers to hurry up to them, in order to share their danger shoulder to shoulder and to fight with them. The moment when the echelon, which has gone first to the front, opens its fire, is the most favourable for all the others to gain ground quickly, since the enemy will at this moment direct all his rifles at those skirmishers who have the first advanced.

One experiment which I have seen made is yet more unpracticable than the above; a firing line was divided into a still greater number of fractions, and (supposing them for the sake of clearness to be

numbered) the even and the odd sections advanced alternately by rushes, so that they really advanced *en échiquier;* in this case the centre swarms of the fraction which at first lay down, found their field of fire so narrowed on both sides by their comrades who had run forward, that they could do little or nothing. For this reason, at the peace exercises which were carried out in my command, I never allowed a firing line, which was advancing by rushes against a single object, to be divided into more than two echelons.

It is very important that the officers of the firing line, before they order the first rush at a range of from 440 to 550 yards, shall have the small sight put up. For they may with certainty count upon being able at the first rush to reach the zone of the small sight; especially since at a range of about 440 yards, when the target cannot be clearly seen, the men in battle almost always shoot too high, more so than at shorter ranges. From the above-mentioned point the fight will become hotter, and the men will be very likely to neglect to alter their sights. If the men are already accustomed to aim at the bottom of the target (that is to say, at the feet of the enemy), the height of a man will still be within the trajectory when using the small sight; moreover, the whole of the remainder of the attack can be carried out with this sight. It is possible, if the skirmishers be well instructed and if the advance by rushes in echelon be well carried out, that the troops may reach the boundary of the village without very great loss; whether it be, as was the case with the "Franz". regiment at Le

Bourget on the 30th of October, that the enemy is deceived and confused by the change of targets; or if, as at Villejouan, the fire directed on him is so intolerable that he does not defend the edge of the village energetically.

But we must always be prepared to anticipate a stout resistance by the enemy. If this does take place we shall find, as I have said above, that the rush of the skirmishers will be checked by the enemy's fire; its length will thus be limited not by the will of the leaders but by the hostile fire; the attacking skirmishers "will not be able to get on any farther," will lie down, and will recommence firing. Why cannot they get on any farther? Certainly not because they will all be killed; but because they will have lost their leaders by fire. For the officers, who always rise first and run on in front, will naturally be selected by the defenders as their principal target. I would remind you of the answer of the men which I have already mentioned: "We had no officers left to tell us what to do." In all the battles of the last war the loss in officers was out of all proportion to that in men. The infantry are proud of this, and have every right to be so. No infantry at the beginning of the war had more than 3 officers per company, and the maximum which a regiment of 3000 men had, including field officers, was thus about 50. There were thus 60 men to each officer. But it appears by the table of losses that there were never more than 30, and often 20 or less, men hit to each officer. The loss in officers was thus at least double, and often three times, the loss in men. But it is impossible to

expect a line of skirmishers who have no officer left, to carry out their original instructions and to rush on. They will remain lying down and firing. The attack will thus come to a standstill, and the rush will have been stopped by the fire of the enemy.

There is now no other means of bringing about a farther advance or a renewed rush than by throwing into the line fresh strength which shall carry on with it the former combatants. This fresh strength comes first from the supports of the first line, and then from the companies of the second line, as these are pushed forward into the fighting line. It will then be possible to direct these companies, as they rush on, in accordance with the circumstances of the action; whereas, from the moment when the skirmishing line opened fire at 550 yards up to that when the attack came to a standstill, *it* really governed the movements of the battalion. In this respect there is a most marked difference between battle and exercises on the drill ground. For on the latter the skirmishing lines conform to the movements of the companies and the battalion, whilst in the former the companies and the battalion will modify their movements according to the success or failure of the firing line. No regulations can in any way correct the want of reality of peace exercises in this respect, for it is impossible to prescribe that the leading section of skirmishers shall govern the movements of the battalion. But it must be distinctly understood that this difference does exist, so that on the drill ground, when the firing lines have been extended and are firing, the battalions and companies may not make movements which,

though they may be entirely in accordance with the directions of the regulations, will still lead to an unreal, complicated, and even impossible system of handling the firing line.

The battalion commander, if the edge of the village has not already been captured, must use his last company to give the final impulse to the rush, to the charge, and to the assault. When this last company has once been engaged, there is nothing more to be done than to give the word: "Charge! Charge! Hurrah!" It is of no use then to deliberate as to whether the first rush was begun too soon, or whether the companies might not have been better employed a little more to the right or a little more to the left, or whether a better point of attack might not have been chosen. At that moment every change of formation and every movement to a flank will cost only more time and more lives. The quicker the decision is brought about, the less will be the cost of the victory.

With regard to the question as to how such an attack is to be carried out, when we are not in a position to support it with artillery, I must first answer that in that case, if one expects to succeed, the assailant must be far more superior to the defender, either in the number or in the excellence of his troops, than when the attack is carried on in combination with artillery. For you will agree with me that, looking at an action from the point of view of theory, we must take it for granted that the assailant is the superior; otherwise he would not be the assailant but the defender.

If then it be not possible to get near to the

village by surprise—and this we assume, since we are carrying on the attack over entirely open ground —there remains nothing else to do but to replace the artillery fire at from 1100 to 1200 yards by the fire of infantry. It is obvious that this lack of artillery can be remedied in such a manner only at the cost of an enormous expenditure of ammunition, since the percentage of hits at these ranges is, as we all know, exceedingly small, while we shall be obliged to fire with two or three different sights, in order to cover even half of the 440 yards which forms the zone of effective shrapnel. We shall endeavour to make good the immense expenditure of ammunition which is the consequence of this, by supplying the troops which are firing at such ranges as early as possible with fresh ammunition, before they are allowed to go farther to the front. At this point, at 1100 or 1200 yards from the enemy, it will still be possible to bring up the ammunition carts. But the distribution of the ammunition will take some time, while the advance of the assailants ought to take place under the cover of this infantry which is firing at long ranges. For this reason I think that, for the first fire on the village at long ranges (1100 to 1200 yards), that portion of the infantry should be used which it is intended to employ as a last reserve when the fighting becomes close. This portion ought to continue firing until the first line of attack, which will advance on its flank (in the same manner as the "Franz" regiment at Le Bourget), has got so close to the village that it can open an effective fire at short range. It will then fill up with ammunition, and follow as the reserve of the attack, which will

now be divided into two echelons which, firing continuously, will advance by rushes.

Excuse me if I now lay down in detail the manner in which, in my opinion, a battalion ought to be worked in such a case as this.

The first company extends, advances to within 1100 or 1200 yards of the village (if it be possible it will go as close as from 900 to 1000 yards), and opens fire with several different sights. On its left the 2d and 3d companies will advance side by side, in strong skirmishing lines, each in two parts moving in echelon, just as the front line of the "Franz" regiment did at Le Bourget. Their firing line will lie down at a range of 550 yards from the enemy and will open fire. This will take them a quarter of an hour, for as they move alternately they will take twice the time that they would have taken had they moved without halting; again the 1st company, having been sent forward at first, will have opened fire before the other companies were up in line with it. The small percentage of hits must be compensated for by a great expenditure of ammunition; therefore the volleys must follow quickly after each other. Volleys may certainly be used at this stage, since the noise of battle will not yet be too great, while the company need not be extended at very wide intervals, since it is not yet within the zone of very effective fire. As soon as the 2d and 3d companies commence firing at 550 yards, the 1st will form a loose line, and will fill up with ammunition from the battalion carts which will be brought up; for we may assume that it will have fired 50 rounds per man. The battalion at this moment is

formed as follows; the 2d and 3d companies have their skirmishers at about 550 yards from the village, their supports are about 200 yards farther to the rear, while the 4th company, which will be formed in a loose line overlapping the left, will be 200 yards yet farther to the rear (say at 900 to 1000 yards from the enemy), and the 1st company at a range of 1200 yards will be replacing their ammunition. The development of the farther action of the attack starts from this formation. If I were called upon to state how great a force of an enemy of equal value I should expect to overcome by an attack so conducted, I should be compelled to own that I think it very doubtful if the attack would succeed in the case where the defenders were half as strong as the assailants. It would certainly be better, with these odds, to contain him with one company which should act defensively from under cover along his front, while the three others should act against his flank or try to turn it. But this is not the question here, for we are considering what should be the formation for a frontal attack, when the enemy *must* be attacked in front over open ground.

The punctual replacement of ammunition is one of the most difficult problems in war. Of what use are the most skilful strategical manœuvres, or even heroically brave troops, if the latter find themselves at the most critical moment defenceless before the enemy? I have myself once, in the war of 1866, undergone the bitter experience of finding myself without ammunition at the decisive moment. Other lines of artillery were in this respect, during the same campaign, worse off even than I. For this reason I

have given my whole attention to the question as to how in war the fighting troops are to be continually kept supplied with ammunition. When, in the years 1870-71, my position imposed upon me the duty of providing for this supply to an Army Corps, I worked out in practice the result of my reflections, and succeeded, though with great toil and difficulty (which were, however, lightened by the unwearying activity of the personnel of the branch), in so securing the supply of ammunition, that in that corps no single body of troops was ever unprovided. It is true that at both wars the expenditure of ammunition by our infantry was but small; in the whole war of 1866 it averaged only from 5 to 11 cartridges per man. In the war of 1870-71, when I sent the whole of my five artillery ammunition columns back empty to the rear, I had at the most to send a couple of infantry ammunition wagons with them. My experience was thus confined to the supply of artillery ammunition. But the general principles are the same for both, and can be applied to infantry also; moreover, we must make up our minds clearly, and in good time, that in the future we also shall expend a far greater quantity of infantry ammunition, since we fire now at longer ranges.

The fact that we in 1866 expended but little infantry ammunition was due to the superiority of our rifle, which quickly decided the infantry fights. In 1870-71 our rifle did not throw half so far as that of the enemy, and our artillery had to fulfil many purposes which, on the side of the enemy, were entrusted to the infantry. In future wars, in which our rifles will have as long a range as those of the

foe, we may consider that our expenditure of infantry cartridges will, under similar circumstances, be at least double what it then was. But these circumstances will be modified by the fact that a standing fire-fight will often take place at long ranges, and that the lines which will be under cover on both sides, will even at short ranges take longer to break up the enemy, before they can advance to the decisive attack with the bayonet; while the victory will often fall to that side which has the last cartridge in its pouch. Though we in 1870-71 never suffered from want of infantry cartridges yet, on the other hand, our enemy often felt this want, being able to commence firing at longer ranges than we. When I established myself with my batteries on the height to the right of St. Privat, the enemy gave me time to take up a firm position before he began to make an attempt to drive me back by an offensive movement from Amanvillers. An aide-de-camp of General Ladmirault told me some years later that he was sent by his General to two infantry regiments, immediately after I had appeared on the height, with an order that they should take my batteries at once. But neither of these regiments had any cartridges left. The aide-de-camp had to ride back and to bring up other troops; but in the meantime we had made out our position, had found our range to various points, and had increased our line of guns, so that when the attack at last took place these troops were dispersed by our shell fire. It is not possible, since authentic information on the point is wanting, to say how often the French ran short of ammunition. It is certain that Bazaine made this his excuse for not

having renewed his attack on the 17th of August. Many other cases of indecision on the part of that army, which has always been inclined to adopt the offensive, may have been due to this cause.

Many people have considered that the enormous expenditure of cartridges on the part of the French, and the frequent want of ammunition consequently experienced by them, were due to their faulty fire discipline, which is often the cause of such waste; and it cannot be denied that they did waste ammunition. We heard before the war how, judging by experiments on their practice grounds and at the camp of Châlons, their rifle gave a destructive effect at 1100 yards, while they were practised in firing at the double, and with the rifle at the hip, a system which we proved at Sedan to be almost entirely inefficient. A good fire discipline can set certain bounds to the waste of ammunition. But do not let us expect too much from it!

Fire discipline can prevent the fire from beginning too soon and at too long ranges. It can also, if fire be ordered or permitted to commence at very long ranges, keep in hand the amount of ammunition expended. It will especially be able to do this when it is possible to fire swarm volleys, and thus as it were to give the order to fire each cartridge. But when once the fighting lines have got so close to each other that each individual skirmisher can see his enemy aiming at him, when the losses begin to get heavy, and when certain sections have lost their leaders (and their successors have not at once drawn attention to themselves by words of command), then, at first in these sections but soon along the whole

front, a hot fire begins to "roll," as those men say who have experienced it. Then all directions with regard to economy in ammunition cease, since no word of command can be heard above the noise of battle. To use a technical expression "individual fire has it all its own way." I do not wish to say anything against the self-sacrificing courage of our excellent individual infantry soldiers, but there are always some among them who are but too glad to keep up their pluck by a noise; for no one wants to be killed, and most men feel the need of silencing the fear of death by a shock of some other kind, such as a great noise. At times when it would be premature to charge in with a cheer, this uproar will continue, in order that the excitement created by it may compensate for the chilling effect of the fear of death. It is also due to the rage and desire of vengeance, which battle excites, when we see our friends fall or feel the smart of a wound. I could name to you a certain Colonel who was grazed by a bullet, which so enraged him that he seized the rifle and cartridges of a wounded soldier, and refused to go back to the dressing station until he had "knocked over three of those scoundrels" who had dared to injure him; he succeeded in doing so, but was eventually carried back with three wounds. Moreover, when the fire-fight is in full swing, when "independent fire has it all its own way," every cartridge that can be fired will be fired, and it is no longer possible to provide for economy of ammunition. This is a factor which must be taken into account, for, whether we interfere or not, its influence is irresistible. Even in the case of artillery it is very

difficult to keep the fire regularly in hand when the fight grows hot, while in the case of that arm it is far easier to pay attention to every shot, since no single man can work the gun according to his fancy. In the infantry, when once the fire of skirmishers has grown hot, it is no longer possible to exercise any influence over it.

But under such conditions when acting on the offensive, especially in open ground, a renewal of ammunition is, as I have said above, absolutely impossible.

If, therefore, we do not wish to be exposed to the risk of seeing our offensive fail for lack of ammunition, we must seek for some other means of preventing the expenditure of it from being excessive. The only way in which this can be managed is by taking care that the attack is not commenced until the enemy has been obviously broken by the fire of our artillery, and that the attack is then carried out in such strength, and with such a decisive use of the supports, and eventually of the second line, that, owing to the application of these two principles, the time during which the infantry must keep up the fire-fight shall be cut as short as possible. But this will be possible only when the attack is properly thought out, and when, as at Villejouan, the combined action of the two Arms has been previously concerted. Troops which, under exceptional circumstances, have been compelled to open fire at long ranges (1100 to 1200 yards), must be at once supplied with fresh cartridges as they stand in the firing line, even when they have expended but a very small portion of their store, before they are allowed to advance nearer to the enemy. Again, all pauses in the

action at short ranges must be taken advantage of for the renewal of ammunition, and it must be established as a principle that every effort must accordingly be made to complete each man's cartridges to the full number of the equipment, since we can never tell what demands the next moment may make upon him. For this reason we should not even wait for a complete pause in the action, but should make use of any time when the enemy is firing from long ranges only. The fight at Villejouan offers a good example of this. After our Fusiliers had captured the place, the enemy pushed on in large masses, with a view to recapture it. The Fusiliers were in the act of renewing their ammunition, and the horses of the ammunition carts were shot, which proves that there was no real pause in the action.

According to my opinion, the principles which are in vogue with us (for as far as I know there are no exact orders as to the conduct of the ammunition carts), tend to leave them too far out of the action. We are too anxious to keep them out of fire, just as in former years the lines of ammunition wagons of the artillery were left too far to the rear. What does it matter if now and then a wagon does blow up? It is, in any case, better that this should happen than that the troops should be abandoned to the enemy without ammunition. If a couple of horses are killed, it is no great matter. They can be replaced after the action; at the moment we shall merely be delighted that we have plenty of ammunition. The horses of the ammunition carts of the 76th Fusiliers at Villejouan were but a small

price to pay for such a result. We often hear the most terrible stories told as to how fearful it is when a wagon blows up, and how we must, therefore, avoid bringing ammunition wagons and carts under fire. I know from experience that the danger is not so very great, and that an explosion is not such an awful thing after all. All my batteries at St. Privat, at the order of Colonel Scherbening, placed their first line of wagons in the firing line beside the batteries, in order that they might replace every shot fired. They stood there under artillery fire during the whole afternoon until night came on, and were from 2 to 5.30 P.M. under the enemy's infantry fire also, at a range of from 1000 to 1100 paces. Not a single wagon blew up during that day, though here and there a limber exploded. One went up exactly at the moment when an officer was looking into it to arrange something. He staggered back, and for three days had a headache and was deaf; but he is now serving on the General Staff. When I hear the story told that, during the cannonade at Valmy in 1792, the whole of the French army under Dumouriez fell into disorder because two ammunition wagons blew up, I simply do not believe it. One shrapnel or one common shell, falling directly into a column, will cause three times as much loss as an ammunition wagon which blows up.

A suggestion has been made to me, with a view to prevent the premature want of ammunition by infantry on the offensive. It is proposed that each man shall, before the commencement of the attack, place a certain number (about 10 each) of extra cartridges in the pocket of his tunic. This idea is

certainly good and practical when there is sufficient time to carry it out, for example, in the case of an attack, such as that on St. Privat, which is arranged a long time beforehand. But in actions, such as Spicheren and Wörth, which have more the character of accidental meetings, either time will be wanting or valuable time would be lost by making use of favourable moments.

There is another circumstance which injuriously affects the punctual renewal of ammunition, namely, the fact that the troops are not accustomed to think about it. An ammunition cart is rarely attached to infantry at peace manœuvres, since the whole of the ammunition which is expended during their entire duration can be easily carried by the soldier. Horses of the train were at one time allowed to the VI. Corps, which were intended to be used for the purpose of practising the conduct of ammunition carts in action. It was then very easy to see how rarely in peace any one thought of the ammunition carts. I had continually to make observations with regard to this, since the troops looked upon these empty and clumsy carriages, which were always in their way, as only useless encumbrances; they never gave them their orders in time, so that one might be certain that, if a battalion which was provided with ammunition carts, had to fall back in action, the latter would march in rear of it, and thus between their own troops and the enemy. The idea then struck me to fill the ammunition carts at the manœuvres with the breakfast of the battalion, and to mark the moment for the renewal of ammunition by the time for breakfast, for I was certain that in that case the whole

battalion would have their eyes on the wagon, especially if it were laid down that the enemy, if he captured such a wagon, should be allowed to eat the breakfast. Unfortunately this idea would not work in with the existing regulations, according to which the Commissariat looked after the subsistence of the troops.

It would at any rate be very desirable and useful if it were made possible to give ammunition carts to the battalions at all manœuvres, so that the battalion commanders might thus become accustomed to pay attention in time to their guidance and to take into consideration the renewal of cartridges. There are no other means of teaching them to daily and hourly think of and remember their carts, since no general regulations are of any use. The special situation varies in each individual case. But every battalion commander must be filled with the strongest desire to replace at once all ammunition expended, even though the amount be small, in order that the men may as far as possible always have their pouch and pack ammunition complete, and that the cartridges in the ammunition carts may be expended before those which are carried by the men. It was only by a similar principle to this that I avoided in 1870-71 a want of ammunition by the artillery ; I made them use first the ammunition in the wagons before they were allowed to touch the limbers ; the guns had thus their limbers always full for use at critical moments.

I have said that general regulations are of no use in this matter. I will go further than that. General orders also are of no use, unless the very greatest care is taken to ensure their execution. I seem to hear you say : " Then the devil must be in it." I can assure

you that he is in it, and gets very good fun out of it It is of no use at all to say: "The most distinct orders were given on the subject; why have the battalions not obeyed them?" What is the use of a reproof of this kind? The battalions have suffered losses, the commanders who have not obeyed these special orders are dead, and this is the real reason why those orders have been neglected.

Allow me to tell you something about this matter. Before we left Berlin the General commanding the corps, at my suggestion—for I had charge of securing the supply of ammunition—ordered that in every action the commander of the artillery should inform the divisions as to the position of the ammunition columns, and that after the battle the divisional commanders should report to the corps commander that the battalions were completed with ammunition, or if not why not. At the battle of St. Privat I informed the divisions that the infantry ammunition columns were at Batilly, and that the ammunition carts might be filled up at that place. On the next morning not one single report was sent in. I rode about through the bivouacs and found that but very few Majors and Adjutants of those who had read the order were still present; most of them had fallen! It was impossible to blame any one. I rode from one battalion to another and myself provided for the renewal of the ammunition, since the ensigns and young Lieutenants who were on that day in command of many of the battalions, could not be held responsible for the neglect of the order; for this reason I also made no report of the omission to the corps commander.

I should wish to draw attention to one point

which I have learnt from experience. The regulation of the renewal of ammunition, and the course of procedure to be followed to carry it out, must be freed from all red-tape, formalities, and complicated accounts. Troops which are fighting do not like to have to do much writing or arithmetic. They always abominate vouchers and receipts on Army Form F. The man who risks his life for honour and duty feels himself at liberty to dispense with vouchers, since he may perhaps in the next half-hour close his accounts with his blood. If a body of troops cannot account for 10,000 cartridges, what does it matter; they must merely return 10,000 extra cartridges as expended. Who is likely to make away with cartridges in war? What would he do with them? In such a case then the audit of the expenditure by double entry must be given up. After that, in my earlier campaigns, I had discovered how troublesome was the useless labour which was imposed upon the troops by the periodical returns of ammunition, and had formed the opinion that it simply delayed the renewal of ammunition without ensuring any real control of the expenditure, if (following the regulations) receipts had to be sent to the columns before the latter would issue the ammunition, I added the following instructions to the above-mentioned order of the corps commander:—"Every soldier of the corps who comes to the columns during an action with an ammunition cart or wagon shall be supplied with what he requires, and receipts on the proper forms shall be kept ready with the columns, which shall be filled up, according to the statement of the man,

with the number of the company, battalion, and regiment for whom the ammunition is drawn ; this shall be signed by the soldier at the column, or if he cannot write shall be marked with three crosses." I put aside the idea that such munificence might result in some waste of ammunition by the thought, that it would be better to lose 10,000 cartridges by an error in the accounts, than by some pedantry of book-keeping to permit even a single company to suffer from a want of ammunition. But even this arrangement was not sufficient in all cases during the last war as regarded the artillery ; and in future the infantry will require as large a supply as the former. It was sometimes necessary in action to break up the ammunition columns and to bring up their dispersed wagons into the firing line.

This is how it must be done. The troops which are engaged must be made to replace in time the ammunition which they use, and they must do so as best they can. But those who bring up the ammunition outside of the zone of fire must consider it as their most sacred duty to assist in their supply, and spontaneously to carry forward ammunition to the troops to which they belong, if at any time the latter have need of it ; and this they must do without any orders, for the officer commanding the troops has no time in the stress of fight to call them up, nor has he any means of sending orders. Above all, after any hot struggle, or after a fierce attack, when the roar of battle, which has been gradually swelling, ceases suddenly in a moment, every leader of the ammunition which is following in rear must strive to get forward in order to come up with his troops.

LETTER XIII

THE REGIMENT OF INFANTRY[1]

I HAVE in my last letter spoken of every possible condition of an infantry combat with reference to the battalion. This is quite natural, since the battalion is still the nominal tactical unit. We always reckon by battalions. And though, owing to the development of the fire-fight and the increased importance of the individual man in it, and also owing to the necessity for care in details and for the direction of each individual man, the company frequently plays the part of a tactical unit, yet it can never by itself carry through a contest of any importance, which will always require the combined action of several companies.

For this reason I have laid before you my principles of infantry tactics with regard especially to the battalion, and I have thus, when I ask you to pass with me on to the next highest stage of our building, not very much remaining to say with respect to the regiment.

The regulations appear, by their stepmotherly treatment of the battalions combined into the

[1] It must be remembered that the Prussian infantry regiment consists of 3 battalions.—*N. L. W.*

regiment, to consider the officer commanding the regiment as, tactically speaking, superfluous. For after the 3d and 4th chapters have treated of the battalion, the 5th passes on at once to the brigade.

But we know well, and I need not begin by impressing on you, the important part which the officer commanding a regiment of infantry plays. If we consider the amount of his duty we shall realise what a gap would exist if he ceased to be. He has to supervise the whole of the training of the troops in detail, and is responsible for it. He looks after the supply of officers, and sees to their training for duty, their education, and their moral character. He controls and supervises the supply of N.C. officers to all the twelve companies, not one of which can accept a one-year volunteer unless the Colonel has first seen him, and has approved of him. He directs the selection of the tactical principles which are to be observed during the exercises, and is responsible for it. Moreover, he has entire direction of the pay and clothing, and has charge of everything connected with barracks and quarters and with the subsistence of the men, while finally he has the heavy and important duty of attending to punishments and minor jurisdiction. This is also the case in the other arms, but the number of men is far larger in an infantry regiment, and thus the amount of work of this kind which has to be done there is much greater. There is a vast difference in looking after each individual man among 700 and among 1800 or 1900. Thus the demands on the energy and zeal of a Colonel are often so great, that we may be inclined to doubt whether the strength of any individual can suffice to meet them.

But why do I begin by writing to you of these matters? I well remember the time when you held this position, and opened all your heart to me. Do you remember how you at that period described to me one of your days, and that one on which you proposed to take some rest?—The doctor had ordered you, as you had a chill, to remain a little longer in bed in the morning, in order to await the effect of a sudorific.—You had for this purpose selected the day before the company inspections, so that you might be quite well on that day. At the same time you had intended to use this so-called day of rest for working off a quantity of writing which had to be got through. The Paymaster was to arrive at 10 A.M. with a number of questions relating to administration, which were to be followed at 11 A.M. by the assembly of the pay-committee, since it was pay-day; after that the officers charged with provost duties had to be seen, since there were at that time an unusual number of cases which required investigation. When at 7 A.M. you lay perspiring freely, you received news of a serious case of breach of discipline which had taken place in the barracks, and which could not be rapidly or properly settled without the immediate personal presence of the officer commanding the regiment. You dressed yourself quickly and set out in that inhospitable spring weather, when hail, rain, and sunshine follow each other during successive half-hours. Your perspiration was checked, and you shivered instead. The affair in question kept you for several hours in the barrack square. At last you returned home. The Paymaster was already waiting. You were so

hurried that you could only work off the most pressing matters, and you then had to attend the committee, after which you had to see the provost officers. You found that there were some cases of a very complicated nature, upon which it was difficult to decide at the moment. You decided therefore to read through the documents connected with them when alone and undisturbed, and to compare the opinions of the provost officers with the rules and orders as to punishments. You therefore, between 1 and 2 P.M., dismissed these officers after having worked with them for several hours, and gave the order that no one else was to be admitted on business. Comfortably wrapped in your dressing-gown you stretched yourself out on your sofa before the fire and had just attacked the first paper, when the Adjutant insisted on being admitted, since he brought a report which admitted of no delay. This was indeed the fact! An officer had shot himself under such peculiar circumstances, that it was absolutely necessary that you should go at once to the spot. You might certainly have sent the senior field officer, after having given him the necessary instructions. You might indeed have done this at 7 A.M. But a man who has any sense of military duty does not like to leave such important matters to any one else, since he is himself responsible. You were not on the sick-list, you had not handed over the command of the regiment; so you went, and you were quite right to go. You had again to work for some hours in a varying temperature, and on matters moreover of the most worrying description. I happened by accident to meet you on your way, and was witness

of the scenes which took place, of the investigation of the circumstances by the legal authorities, of the despair of the wife of the unfortunate suicide, and heard the wild words which the doting father addressed to his son's corpse.

After everything that had to be done was settled you returned to your house. It was late in the afternoon before you could get back to your work, and you had not completed it when night fell. You even had to put off to another day some important correspondence with regard to the admission of two officers into the regiment, which you were obliged to write with your own hand. And this was a day of rest for you! If the saying, "There is no rest but in the grave" is true of any one, it is especially so of the officer commanding a regiment. It was no wonder that you suffered after this from a serious cold on the lungs.

It is certainly true that the officer commanding a regiment has in his command itself the means to lighten his work; he has an Adjutant and clerks, and can in addition employ other officers. But any one who thinks that he has therefore no need to write himself has never commanded a regiment. Everything which has reference to the reports on officers and on candidates for that rank, always most troublesome and disagreeable affairs, which must be invariably treated with the greatest tact, and which must remain buried in the breast of the officer commanding a regiment (since no one else must ever know anything about them), he is obliged to write with his own hand. Did you not tell me that during the time that you commanded a regiment you selected 60

candidates for officers and rejected 240? I know well what an enormous amount of correspondence may take place about even a single one of such candidates. I know also how careful one has to be in the expressions used, so that the letters may not be misunderstood and may not produce a false impression, especially when one is compelled to reject a candidate. However, you have not suffered so much from this as I have. When I commanded the regiment of field artillery of the Guard, the father or the guardian of some young fellow, whom I had refused to accept as a candidate, never failed to accuse me first to the brigade commander of the place, then to the inspector, then to the inspector-general, and at last to the field-marshal himself; the complaint used to be sent to me for my "reasons in writing," and though I was always fortunate enough to obtain their sanction to my decision, yet, nevertheless, I had always all the trouble about it. And the very importance of such matters makes these formalities especially trying to the nerves.

Moreover, the officer commanding a regiment, in addition to his principal duty of working his command on correct tactical principles and of looking after the military, technical, and moral training of his regiment, should also be a lawyer, in order that he may in every case rightly administer military law, and should further be a master of accounts, so that he may always be able to exercise control over the Pay-master, and may not find himself suddenly placed in the most awkward of all predicaments owing to a deficit in his treasure-chest; while he must in addition know something about tailoring and shoemaking, in

order that he may be able to properly look after the clothing of his men from head to foot. And of all these that of which he knows least will give him the greatest trouble during his period of service.

How then can he keep up the freshness of thought which he requires in order to think out interesting and instructive exercises for his officers, to be well prepared and confident as to his tactics for the manœuvres, and to carry them through with the necessary energy, and also to perform his social duties to his officers and their families, to show himself always pleasant and agreeable to them, to share their pleasures and to direct their conduct?

When I had the honour to command a regiment of artillery it consisted, according to the then organisation, of 15 batteries, and contained about as many men as an infantry regiment does now, and perhaps a few more officers. The amount of the daily important and pressing business was so great, that every evening my head felt like a totally exhausted well, which yields only mud in place of water. I can therefore quite understand why it is that so few officers commanding regiments progress with the times, even in military matters only, especially if they are married, and desire, though they be free from any home cares, to devote at least a few hours of the day to their families, in order to ensure that they may attain a proper position in the world. Only a few exceptionally gifted natures are capable of keeping themselves up to the mark by reading the most important works on military science, and of advancing their own knowledge so as to remain in touch with the progress of the Art of War. If

the commander of a regiment desires to conscientiously discharge the duties of his command, there can be no question for him of any advance in general knowledge, or of any enjoyment of the fine arts.

I have often thought, with regard to this subject, whether it would not be better if the extent of the work of the commander of a regiment were to be diminished by handing over his functions altogether to the commanders of battalions, and by giving up entirely the status of a commander of a regiment, or, to put it in other words, if the commander of a battalion were given the position of the commander of a regiment, an acting field officer being added to the establishment. There would not thus be any increase in the number of field officers, for we have already six of them in an infantry regiment; the commander of the regiment, the three commanders of battalions, one acting field officer, and the so-called thirteenth Captain. The regulations, since they say scarcely anything about the drill or the fighting of an infantry regiment, appear to smooth the way for such an organisation. In case of war there would be one field officer available per battalion of the line who might take over the command of a *landwehr* battalion, of a reserve battalion, or of a battalion of newly formed troops, if such should be raised.

But the more I have thought over the suggestion of such an organisation and its consequences, the more am I convinced that it would have more drawbacks than advantages. The then commander of a regiment, who would have only four companies under his command, would not be so overworked as is the present. That is true. But this would be the only

advantage. Everything else tells against the plan. The body of officers would be too small to have any variety in it. We should seldom find in it all the various capacities for the discharge of duties, from which we must select for the several functions required. The bond of comradeship, which is the foundation of good feeling, might be too easily dissolved by the differences between individual personalities, and the versatility, which now by means of earnest discourse and cheerful companionship at scientific or social meetings increases the unity of the young officers and makes their lives pleasant, would then be lost; a general apathy would arise, and the young officer would soon grow accustomed to spend his spare evenings as a matter of course in beer-houses, if indeed he did not fall into bad company or take to gambling. You will not, I hope, oppose to this statement the fact that the Jäger and Pioneer battalions have a single independent body of officers. I am convinced that the officers of these corps feel most painfully that the small number of comrades in their regiment is a misfortune.

However, important as this point is, it cannot be the main consideration which should decide the selection of a military organisation. The main point is, and will always be, the combat, the battle, to which the body of troops owes its existence. Let us ask then from military history whether the commander of a regiment of infantry has been tactically a superfluity or a necessity in the battles of the last war. The fact that in the battle of St. Privat the whole of the commanders of regiments of the infantry of the Guard, with the exception of one, were

either killed or wounded, is at least a proof that these officers displayed great activity in the struggle. If we look at the plans of battles which are added to the official account, we shall be able to form a general idea of the consequences of the activity and zone of influence of this rank, since on them the positions of single companies are marked, so far at least as could be done after comparing the various reports. We shall see there that, as soon as the troops became engaged, the companies and even the different battalions became mixed, but that as a rule the regiments preserved their unity; this is a proof that the troops fought by regiments, and that thus the regimental command played a necessary and important part in battle.

What most impresses me is, that it was in general possible to preserve this unit of command up to the last in the battle of Vionville-Mars-la-Tour. Even at 5 P.M., after the swaying backwards and forwards of a very hot struggle against an enormous numerical superiority, we find (see the map[1]) the greater part of the companies of one and the same regiment fighting shoulder to shoulder, and we can almost everywhere venture to mark on the map[1] with a needle the point, where the commander of the regiment who directed this struggle and held the companies together, must have stood. Let us begin from the left flank of the foremost line of battle; we find first the 38th infantry brigade, shattered by their costly attack, falling back before a superior enemy; but what is left of them is moving by regiments side by side. It is true that in the Tronville

[1] In the Official Account of the War of 1870.

copses the 2 battalions which were present of the 79th Regiment have, owing to the fact that they are fighting in a wood, become so far divided, that at this moment a general direction by the regimental command appears difficult. The 17th Regiment therefore, advancing into action in close order with all three of its battalions, pushes itself in like a wedge between the companies of the 79th. We can exactly see on the map[1] how this regiment in close order must have served the dispersed companies of the other regiment as a support, on which they might as it were lean. To the North-East of Vionville we find again 8 companies of the 20th Regiment collected in a united defence (the 2d battalion has been sent back with the 24th Regiment to Tronville in reserve), while next to the 20th Regiment, and supported by them, the 35th Regiment is engaged, and rests upon the 12th Regiment, which is in Flavigny, having left a few companies behind it in Vionville. But the 12th Regiment is fighting in one line, the 3 battalions side by side with the Fusilier battalion on the left flank, separated from the others only by sufficient space to ensure that the great line of artillery shall not be masked. Farther to the right we find half-brigades fighting as a whole. This fact alone speaks volumes as to the necessity for the existence of the regimental command.

In the battle of Gravelotte and St. Privat we find, during the very hottest moment of the struggle (see the map[1] of the position at 7 P.M.), almost all the regiments of that great army fighting side by side in compact masses; at the farm of St. Hubert alone

[1] In the Official Account of the War of 1870.

are there crowded together 43 companies belonging to 8 different regiments. This appears to have been the only point in the grand decisive battle at which the regimental command was broken up and lost.

So far as I can follow the system of command in the Guard Corps in the war of 1870-71—and, being on the General Staff, I had an opportunity of knowing every order and every decision—the regiments were treated as distinct units; but, nevertheless, it was permitted to detach a battalion here and there, so that a regiment sometimes consisted of but 2 battalions. It was considered preferable to break up brigades and to form, if it could not be otherwise arranged, improvised brigades, as for example at the storming of Le Bourget, where the centre column was formed of the "Elizabeth" and "Augusta" regiments under the supreme command of Count Kanitz, though these two regiments did not ordinarily belong to the same brigade. Even at the time of the mobilisation many regiments were taken from their own brigades and were used to make up other brigades. Thus we find a Silesian regiment forming part of the IX. Corps, etc.

Although the regulations pass over altogether the exercises of a regiment, and speak of the brigade next after the battalion, yet they only in appearance thus assume the greater importance of the brigade, and also only in appearance thus pave the way for the abolition of the regimental command. I might even assert that the new regulations as a matter of fact lay more stress upon the importance of the commanders of regiments than do those of 1847, since they attach great value to the employment of

regiments by wings in the same line, a formation which was laid down before 1870. So long as the two regiments of the same brigade could only be used in two lines, one in rear of the other, the extension of front, which is the consequence of the development of the fire-fight, must, if by any chance the second line is ordered to advance to support the first, injuriously affect the cohesion of the two lines (which are separate regiments), and thus also the importance of their commanders; whereas, when the regiments are employed side by side, they remain still united, even when the second line is pushed forward.

A mere glance at the plans of the battles will show us where the regiments stood side by side and where they were in rear of each other when fighting in brigade. The 38th Brigade fought by wings in the battle of Vionville, as also did the 20th, 35th, and 12th Regiments. On the other hand, the 17th Regiment advanced in one line in rear of the 79th, and broke up the latter into two parts.

You may perhaps ask me what that can matter, since they performed their task and the Tronville copses were in the end captured. It is true that on this occasion it does not seem to have mattered much; but as a rule a regiment of 3 battalions fights better than 3 battalions of different regiments who happened to be formed together and intermixed. Men are but men, and in many of them the instinct of self-preservation is strong. Such men will be ashamed to "funk" if they are fighting among men whom they know; but if they happen to be among soldiers wearing a different uniform, and whom they do not know, the desire to

keep out of danger grows stronger in them. If we wish to gain an insight into the truth of things, we must take men as they are, and not as they are made to appear by a poetical imagination. It is true that there are heroes, and they exist in all classes of society. We may even say, to the honour of the human race, that they are not altogether rare. I have seen many of them. But the great mass of men are not heroic, and they have to be led up to deeds of heroism and directed in danger.

But you must excuse me if I do not offer you any proof of my statement that an entire regiment of 3 battalions fights better than 3 single battalions of different regiments. I cannot give you any examples, for to do so would be to put my foot into a wasp's nest, since I should raise a storm of abuse if I should assert that the A Regiment fought better in the battle of O than the 3 battalions of the X, Y, and Z Regiments did in the action at P. I cannot do it, even if you oppose to my statement the fact that the isolated, and as it were dispersed, companies of the 79th Regiment displayed the greatest heroism in the Tronville copses at Vionville, since the 2d company at the North-West end and the 6th at the East end of this wood held out to the last in a most exposed position, and though you may say that this example proves the contrary of that which I assert. What I said is true, and if you do not agree with me I cannot help it. These two companies simply fill me with admiration, greater in proportion as they were distant from their comrades.

From what I have said I have come to the conclusion that we should be glad that our regiments

consist of 3 battalions, and that we should be wrong to copy the organisation of those armies in which the regiment is identical with the battalion. The disadvantage that the mental and bodily strength of perhaps half of the commanders of regiments is so absorbed by their duty, that they are ruined by it and become unfit for further service, must be made the best of. These officers have in peace sacrificed themselves wholly for their King and Fatherland, just as they would have been ready to give their lives in war. They must strike the years during which they have commanded their regiments out of their life, since they could then live only in and for the regiment. Their highest reward lies in the consciousness that they have been one with their regiment; and the tears which a commander sheds when he leaves his regiment afford the very strongest possible proof how dear this time has been to him, in spite of all his labour, his unremitting care, and all the wear and tear of his nerves. As for those young officers who grumble about the touchiness, or even about the real bad temper, and the impatience and snappish manner of their Colonel, I should like to relate to them all the pin-pricks and annoyances which their commander has daily and hourly to endure, and I should further like to advise them not to judge their Colonel and to deal very charitably with him, for a time will come when they will themselves know what it is to be the commander of a large regiment.

With respect to the exercises and movements of a regiment, I have nothing to say against the principles clearly expressed in the 19th and 20th

chapters of the regulations; they are founded on the experience of many years, have been well thought out, and apply not only to a brigade but also to any body of infantry which consists of more than one battalion. I have also in general found that these principles have been thoroughly understood and practically worked out. The various formations and movements which a regiment can thus use are so extremely numerous, that it is always very difficult to go once through them all in the short time (8 working days) which is allowed for the exercise of the entire regiment; any idea of working them up to perfection must therefore be abandoned. If the officer commanding a regiment insists upon the execution of a movement, and repeats it several times when it is not correctly carried out, he runs a great risk of finding his time fail him, and of having to leave some portion of his immense programme altogether untouched; for the movements of infantry are slow and take up a great deal of time. For this reason it would be very advantageous if the time allowed for the exercises of the regiment could be increased. But this is not possible unless the other periods, which are quite as important, be diminished.

All that the officer commanding a regiment can do is to take care that the elementary movements are properly carried out during the battalion exercises, so that he need give the least possible attention to them. This applies especially to the march past, which he should certainly see carried out in all the different formations at least once during the course of the drill season, but of which he should carefully avoid the too frequent repetition. If he immediately

repeats a march past, because it has not been perfect, he may be quite certain that it will be even worse the next time. He must be satisfied with mentioning the mistakes made, and with perhaps repeating it on another day. For if he repeats it at once, the attention of that person alone who made the mistake will be on the alert; while the others will grow weary with the repetition, and will, being weary, be more likely to make errors. This is also true of all other movements. The movements of a mass of infantry of the size of a regiment are, moreover, so lengthy and wearisome, that any repetition must be tiring if it takes place on the same day. And nothing so entirely does away with all the use of the exercises as a feeling of weariness among the officers and men.

Again the officer commanding a regiment should make only such movements (parade drills excepted) as would be really of use in action. It will not always be necessary to carry out the actual combat. Movements of the reserve, or of the second or third lines, are also battle movements. He must think out some tactical situation to suit each movement and each evolution, and every soldier of his regiment must be able to appreciate and understand this tactical situation. If this be not done the exercises will be objectless. They cannot be made instructive if they are carried out merely for the sake of carrying them out.

I have known officers commanding infantry regiments who, fully recognising this fact, did nothing but manœuvre their regiments during the regimental exercises. These officers went too far in the other direction; for an infantry regiment cannot manœuvre

independently without any combination with the other arms. It is sufficient if, in the limited time which is allowed for the exercises, the officer commanding works once through each of the simple formations for battle which are given in the regulations. In order to get through even this limited amount in the drill season, he must have his plan made beforehand for every day, if he wishes to be able to work at least once through each problem.

There have been cases (but, thank God, they are rare) where an officer commanding a regiment, with the object of "doing well" at the inspection, has practised the same movements day after day, and has finally on the day of inspection produced his theatrical entertainment, which, however, has sometimes turned out worse than any improvised exercises. You will, I am sure, agree with me, that such a proceeding is merely a waste of time of the worst description, and is an ample proof that such a commander is not fit for his position.

The larger the mass of troops which is being exercised, the more distinctly is the representation of the combat seen to be unreal, since we then have to suppose so many things, especially the enemy, and thus so much has to be left to the imagination. If in this case the fancy of the commander is not in complete harmony with that of his subordinates, the most utter confusion will arise, together with faults which can teach nothing to any one as regards real work, for the reason that such faults could not be committed in war where a visible enemy stands before us. But it is exactly these faults which take up the greatest amount of time. In order to avoid

them I have always distinctly laid down that in all exercises which suppose a combat, whether carried out by a battalion or by a regiment, the enemy's front shall be marked by flags, even though these flags be few in number. This facilitates all movements, and makes the whole of the exercises intelligible.

I am afraid that I have written you a terribly dull letter on this occasion. It would certainly be more interesting and amusing if I were to attack and blame all that is now laid down and were to propose something new, even though the advantage of this novelty could not be proved; it is always dull to merely say that what is is good and needs no change. But when I begin I must say what I think, and defend that which I believe to be right, even though I run some risk of being wearisome. If I have been so, put this letter into the fire, and imagine that you have never received it.

LETTER XIV

BRIGADE EXERCISES

THE brigade is the largest body of infantry which practises exercises in peace without the participation of the other arms. It is not desirable that in war an infantry brigade alone, that is to say, not in combination with the other arms, should be told off for any duty or be otherwise employed. When a brigade is used in a pitched battle either as the reserve or as the main body of a division, the officer commanding will not, as a rule, have artillery or cavalry directly under his command, but he must in every way act in harmony with the action of at least that artillery which supports his attack. But when an infantry brigade is detached or acts independently, artillery and some cavalry will always be attached to it. Indeed, according to our normal organisation, some artillery, and generally more than one battery, is attached to the infantry brigade which is told off to form the advanced guard of an Army Corps. During the last war no infantry brigade was ever detached without artillery, and we even find that when an infantry brigade of one Army Corps was sent to support another corps, as for instance Knappstädt's brigade of the Guard at St. Privat, which was sent

to the IX. Army Corps, that in that case also artillery was attached to it, though on this occasion the whole of the artillery of the IX. Corps was already in action. With regard to this point it appears to me very desirable that in peace also no infantry brigade should ever carry out any exercises without being accompanied by artillery. It does not appear to me to be so necessary that any cavalry should take part in the strictly infantry exercises, since during an infantry fight the cavalry will, for the greater part of the time, merely reconnoitre, while their reports can just as well be supposed to be delivered, since the enemy himself is either imaginary or marked only with flags. The moments when cavalry will take part in an infantry fight by charging are rare. The squadron attached to an infantry brigade would therefore remain inactive during the greater part of the time spent in exercises, and would lose many days which would be valuable for its own instruction.

The question is very different as regards the artillery. That arm is in use during the whole of the fighting exercises of an infantry brigade; it even comes into action earlier than the infantry, and keeps up its fire later, since it shoots farther than the latter; it can thus continue its own training during the whole time of the exercises of the infantry brigade, and can even carry it out better than if it were alone, for the infantry offers it a tangible object for which to fight, such as in its own isolated exercises it has to suppose.

I seem to hear you say that on similar grounds an infantry *regiment* ought not to perform its exercises without artillery, since when a regiment is told

off as the advanced guard of a division some artillery will always be attached to it. I quite agree that it would be sometimes an excellent thing if an infantry regiment might receive a battery for use at its fighting exercises, and when both arms lie in the same garrison it often happens that the commander of an infantry regiment asks for and receives a battery, if the artillery have any time to spare for such a purpose. But a regiment does not need artillery for all its exercises. It has to parade and march past, it has to practise the advance in line and elementary evolutions in masses, it must carry out the long movements which are conducted out of step, the opening out and closing of intervals, the movements in different lines with or without the deployment of the company columns, etc., of which artillery, if attached to it, would be simply spectators, and would, moreover, waste their own time for instruction. It is quite different in the case of a brigade. I consider that all exercises of a brigade which do not represent some possible situation in an action are altogether useless.

With respect to parade movements a brigade need never practise them. For if the regiments can parade well, then, granted that the entire brigade may once be inspected on parade, it will be necessary only to practise the bands together, in order that the drums may keep good time and not spoil the parade. This opinion of mine seems to be borne out by the manner in which our highest authorities inspect brigades. Since they, as a rule, neglect the parade and march past, and usually form them up for fighting exercises. There are certainly some commanders of brigades who even delight in practising their entire brigades in

the manual exercise. To do this well requires a mere knack, which consists in battalion and regimental commanders giving exactly simultaneous words of command. There is nothing about this in the regulations; it is indeed merely something to look at, without tactical value, and therefore a waste of time, which is so much the more to be deprecated as there are seldom more than four days available for the brigade exercises. Moreover, practising the manual exercise in brigade injures discipline, since the brigade commander cannot attend to every motion of every man, while the junior officers dare not do anything or even look after their own men. The men, therefore, in the rear rank do the exercise badly, since they know that they will not be noticed. Exhibitions of this kind must be altogether forbidden, for they form a far too wide interpretation of the sense of the first sentence of the 19th chapter of the regulations.

All the movements laid down in that chapter for the exercise of a brigade can be very well thought out and executed if it be supposed that an enemy is present; and the action of artillery will be then very necessary to occupy the enemy, to stop him, and to draw his attention from the brigade, so that the latter may carry out its movements correctly. But in this case it is very difficult for the artillery to select at once the best point for its position, from which it can work as long as possible, without hindering the movements of the brigade, and in such a manner as to support it up to the last moment. All this must be practised if it is to be rightly carried out. Let us take as an example a simple change of front of a brigade, and let us think what

would be the best position for the battery to take up, in order to quickly open fire upon the enemy whose appearance has been the cause of this change of front. The position must be so selected that the brigade during and after the change of front may not serve as a butt for the shell fired at the battery, and that the brigade, after it has changed front, shall be able to advance against the new enemy without masking the fire of the battery. This position, to which the battery must hurry by the shortest way, will vary according to whether the brigade makes a change of front through a half or a quarter circle. It is also a matter for consideration how far the artillery should be to the front and how far to the flank of the new line, so that they may assist the approaching struggle of the brigade for as long as possible, but without placing themselves at such a distance from the infantry as will expose them to the chance of an unforeseen attack. This position will, in any case, if the ground permits, be in front and to the flank of the inner wing of the brigade as it stands after the change of front. This is quite certain. But to find this position quickly is a matter of skill—and of practice. The artillery must therefore have opportunities to practise it.

But it is not only for the sake of the artillery that practice in this matter is desirable. The infantry still more need practice in acting in harmony with their artillery. For when the artillery have once come into action and have opened fire, it is not wise to disturb them on account of the infantry, or to order a change of position. For the artillery have then to a certain extent become stable.

Artillery which have taken up a specified position, have ranged themselves there, and know the different distances to various points, must not be compelled to unnecessarily change their position, since in a new position a certain amount of time is always lost, while the artillery are ranging themselves and developing the full effect of which they are capable. Again, it is very difficult for the infantry who are advancing from their original position against the enemy, and who naturally have their attention principally fixed upon that enemy, to pay attention to their own artillery in order not to mask their fire; for they must thus watch at once the enemy who threatens them and the artillery which they have passed. In this case also skill and practice are required in order to move the infantry from the proper position in the right direction. If any mistake has been made in this matter at first, it is difficult to repair it, owing to the slowness with which infantry move; while the time which will be required for such a change will entail very considerable loss. In theory we can lay down that, when the firing lines threaten to mask the artillery, the latter shall send word to the infantry to incline away from them. This is easily said, and in manœuvres is easily done. But if you once try in battle to ride forward from the flank of the artillery line which is in action, up to the line of skirmishers which is also fighting, you will acknowledge that it can seldom be possible to do so.

I have, it is true, seen it once done, when the then Lieutenant von Roon, in a reconnoitring action at Satrup on the 10th February 1864, rode forward

from the guns to the skirmishers. The hail of bullets which fell around him on the snow showed clearly how seldom such an effort could succeed. I was at St. Privat twice compelled to recall some skirmishers who had prematurely pressed forward, because they masked my batteries, and I there learned experience by the music which whistled in my ears to such an extent that I was astonished to find myself coming back unhurt. My horse was not so fortunate. I have indeed heard that Lieutenant von Esbeck, of the Hussars of the Guard, twice in this same battle rode along the line of skirmishers with orders and reports, and this in his red uniform and on a white horse. But the fact that on this day by far the greater part of the field officers and adjutants of the infantry of the Guard were either killed or wounded, proves that Lieutenant von Esbeck must have had as much luck as pluck. It will, as a rule, be necessary to give up any idea of sending many orders to a skirmishing line which is firing on the enemy and is under fire itself. It must receive its instructions before it is sent forward; it can after that be influenced only by signals, or by being pushed on by means of reinforcements. Think then what you demand from a skirmishing line, which is now under fire and is lying down and firing in return, when you ask it to rise and to move to a flank, in order to give a free field of fire to the artillery. Half of the men would be killed while making such a flank movement.

It is thus absolutely necessary that the infantry be practised and skilled in advancing past their artillery and against the enemy without masking the

former. Though I have said on an earlier page that infantry can stand at a certain distance in front of their artillery, even when the latter are firing, and though under certain circumstances it is impossible to avoid firing over our own infantry ; yet, as I have also written before, infantry which are lying down in front of their own artillery run a considerable risk. The very occasion when I held back the skirmishers at St. Privat proved this to me beyond doubt. For I had hardly succeeded in recalling the infantry, and had just allowed the batteries to continue their fire, when a shell burst in the bore, broke up like a case-shot, and must have struck the rear of the skirmishing section. Nothing disturbs troops more than to receive fire from their own troops in rear. This I have found many times to be the case. I do not believe that any inventions or any advance in technical science will ever render it quite impossible for a shell to break up, at least now and then, in the bore. I have noticed that these accidents take place only on very dry and hot days (at St. Privat, Sedan, and above all at Montmédy), but on such days they are not uncommon, especially when the cannonade has lasted for some time. They never happened on wet days or in winter. I have therefore come to the conclusion that on hot days the residue of the powder dries quickly, hardens into a sort of crust, and breaks up the shell. No change of pattern can affect this. I have not taken into account carelessness on the part of the gun-numbers, for when once the shell has been fired this is covered by an impenetrable veil of secrecy.

Other circumstances again plead in favour of

attaching artillery to infantry as often as possible, and whenever it can be managed, for every brigade exercise. I have already mentioned in a former letter how important it is that the infantry, as they pass by the artillery in their advance, should inquire the range from the latter, who will have carefully found it, and how a really effective fire from the infantry depends upon this. But this must be made habitual at the exercises, and must be considered as a matter of course; it will otherwise be neglected at the manœuvres, owing to the great hurry which usually exists there, and will then be certainly neglected in war also.

You will have seen from one of my former letters (the 11th) how I consider that infantry and artillery can best work together in the future. After the artillery of the attack has got the upper hand of that of the defence in the artillery duel at the longer ranges, the infantry advances in the formation for attack, while the assailant's artillery moves in two echelons, to within about 2200 yards of the object of attack. Under cover of the fire of this artillery the infantry advance, without firing, until the foremost line of skirmishers is, if possible, from 440 to 550 yards from the object of attack; they there establish themselves and open fire. The moment has now come when the artillery, under cover of the infantry fire, and advancing in echelon (if indeed they have not done so already), may push on in company with their infantry to within 1100 or 1200 yards, with the object, in combination with the fire of the latter, of so beating down the enemy that a farther advance and the final assault may become

possible to the infantry. But a system of this kind, implying as it does a mutual understanding and perfect machinery, must be constantly practised; otherwise it cannot succeed before the enemy. And it must, moreover, be practised on the exercise ground, so that the principles of it may be ingrained in the minds of those who take a part in it; for at the manœuvres the conditions of ground cause so many modifications of this system that it will, owing to these variations, be no longer possible to recognise general principles.

Since from what I have said it follows that it is necessary, or at least that it would be useful, to attach artillery to the infantry for their brigade exercises, you may perhaps say that you do not understand why the annual orders issued by the Ministry of War do not apportion some artillery to the infantry brigades for the majority of the days of exercise. But the orders of the Ministry of War must be general in their character, and must apply to all brigades. Now the exercise ground of many infantry brigades is so far distant from the nearest artillery garrison that the batteries, if they are also to complete their own special artillery training, cannot arrive in time for the first days of exercise. But this need not prevent an infantry brigade, in the case where artillery is quartered in the same garrison, from making an arrangement with that artillery, that on each day of exercise at least one battery shall accommodate its training to that of the infantry, and shall work in combination with them. When I commanded a division, I found that, although I had no artillery permanently under my command, that

arm always met my wishes half-way. Nor do I think that such a proceeding would controvert the intentions of the Ministry of War, even if it were ordered that, as a rule, no artillery was to take part in the exercises of infantry brigades ; for such general orders are issued only with the object of diminishing the cost of the training, and are thus, in the case where a battery can without any expense take part in the brigade exercises, not opposed to such a proceeding. It may be urged, on the other hand, that a brigade of infantry must practise elementary movements, such as deployments, opening out into two lines of battle, movements in the assembly formation, etc., for which artillery are not needed. But might not the artillery perfectly well be used to occupy the enemy while these movements are going on? Or in the case of movements in the assembly formation, these might be practised during the first half-hour of the exercises, while the battery might be called up after they were finished.

With reference to the arrangement of the exercises of a brigade, this is always a very difficult matter, and a well thought-out plan is necessary, if all the combinations which are suggested in the 19th and 20th chapters of the regulations are to be got through even once only and that superficially ; for rarely are more than four days available for the brigade exercises. For this reason, when I commanded a division, I was particularly pleased with an order of the General commanding the Army Corps which laid down that the day of the inspection of the brigade was not to be used for any special display, but was to be simply a day of training like

the other three, during which the inspecting officer merely looked on, and was thus able to form an opinion with regard to the progress of the brigade. In this manner the day of inspection was not lost as a day of instruction, but was employed, according as it fell on the first or the last day of the exercises, for the purpose of carrying out some portion of the programme which had been arranged for the whole time of the training. In this way only was it possible to at least glance at each portion of this vast field for exertion. But more cannot be done; for a mass of the size of a brigade must give up any idea of perfecting everything by repeated practice, as a company can. It must suffice if the commander makes it understood what are his wishes with regard to each situation, whether it be by fully working out some case of a combat, or by investigating the causes of any faults or misunderstandings which may have taken place, and by deducing the lessons to be derived from them. In this manner every situation can be worked out in accordance with the regulations, and can be made full of instruction.

Is this always done? I will not answer this question, but will instead ask you a number of other questions.

Do we find that at brigade exercises and at manœuvres the rule contained in the 4th and 5th notes of para. 107 of the regulations is always observed; this lays down that care must be taken, when acting on the defensive, to give timely support to the first line, which is at some distance and in open order, and further forbids that, as a rule, advanced posts should be occupied if it is intended

to defend them only for a time? Do we not find that, instead of this, an advanced line is generally pushed forward with orders to retire "when necessary"; this would, if fighting in earnest, be almost annihilated, while its retreat must in any case be detrimental to the morale of the main line?

Would it not really be of advantage to all brigades if, in accordance with para. 115, the battalions now and then took up some other position than that which they generally occupy? Do we not hold too pedantically to the directions of the regulations, according to which the Fusilier battalions stand on the right in brigades which have odd numbers, and on the left in the even? This direction, which now merely tends to improve the appearance of a massed division, had its origin in the days when the Fusilier battalions underwent a special course of instruction, and were especially employed for fighting in open order.

Is not the case of an indecisive attack (p. 174), as a rule, impossible to work out by mere regulation movements, and is not an attempt too often made to so work it out?

Are the attacks of columns generally carried out in company column, or, in opposition to the spirit of the regulations, for preference in battalion columns on the centre?

Is the employment of regiments by wings in one line (para. 127, p. 187) always made an "especial" matter for practice?

Is the second line (pp. 189, 190) generally used more as a reserve and so held back, especially when the first line has furnished an advanced line;

or do not we usually find that a preference is given to advancing a brigade in accordance with paras. 119 and 120, in such a manner that the regiment in first line sends forward the flank companies of battalions as an advanced line, and follows them with the centre companies as a main body, while the second regiment, in second line, formed by whole battalions at deploying interval, moves at battalion distance from the first line?

Is a change of lines (as laid down on p. 190) avoided as far as possible during the fighting exercises?

Is the second line, in accordance with the instructions given on the same page, brought into action on the flank of the first, and not pushed through it?

Or do we not generally see the second line systematically pushed through the intervals of the first; and this even though it be in battalion columns on the centre?

Is every effort (in accordance with p. 192) always made to spare the strength of the men, and are all lengthy movements always properly made out of step at quarter-section distance; and are "Order arms!" and "Stand at ease!" always given when it is possible to do so?

Is the march to and from the exercise ground (p. 192) always carried out with an advanced and rear guard when the brigade marches as a whole; is this march thus used as a part of the training, or do we not generally see the brigades, as they march to their exercise grounds, move without any tactical idea and without any thought as to instruction, and thus lose so much time and trouble?

I could give you a favourable answer to these questions so far as concerned the brigades which formed part of the division under my command. I cannot offer an opinion as to the other brigades of the army.

I have already mentioned the formation of the regiments of a brigade by wings in one line, and must warn you that this was a hobby which I was delighted to mount. I am only sorry that the regulations do not lay this down as the regular formation, using that of lines of regiments only under exceptional circumstances. I have already mentioned how advantageous this employment of regiments by wings is, since when this is used the regiments, if the rear line is pushed up to support the other, are not mixed together, and do not lose their cohesion as single regiments. It is a fact that in most of the battles of the last war more regiments fought side by side, that is to say, by wings, then one in rear of the other, that is to say, in lines.

The formation of regiments in lines, which in former days was the rule without exception, is still liable to be used when a brigade deploys for action from the march. The leading battalion comes upon an enemy, of whom as yet nothing is known, and gradually, widening its front, presses on into the fight; it is supported by the 2 battalions which follow it. The inclination to develop as great an amount of fire as possible and to work against the flanks of the enemy leads to an extension in a fighting line which is far too thin, and to a tendency to detach companies, both of which weaken the front; nothing else will then be possible except to strengthen

this thin front, and to deploy the next regiment as a second line. But this is always an evil which again is nearly always the result of a fault. For one has either been surprised by the enemy (which implies that the cavalry have not reconnoitred well), or one has committed oneself too hastily to a general engagement, without making proper dispositions, and is now obliged to employ the battalions one by one as they come up. It has sometimes not been possible to rightly reconnoitre the enemy, since the character of the ground has prevented a reconnaissance, and one can thus only gradually learn his increasing strength as more troops are brought up into action. In this case no fault has been committed, but the evil remains the same. The most striking example of this point is the mixture of the regiments at the battle of Spicheren. We find there at the last in the Gifert forest nearly 40 companies mixed together, belonging to 5 different regiments, and to 3 different Army Corps. Of one regiment (the 74th) we find parts scattered along the whole front of 3 miles, both on the extreme right flank in the Stiring forest and also on the extreme left in the Gifert forest. It is well known how in this battle the direction of the combat was rendered difficult by the mixture of bodies of troops, and we should avoid this wherever we can.

In almost every case where the troops were employed in action according to a prearranged plan, and especially when they could be ordered to advance into battle from their assembly formation, the formation of regiments by wings was used. But I think that this must also be possible, as a rule, when

a brigade is compelled to go into action directly from the formation for march; it is only necessary to make such a use the rule at the exercises. For if the necessity arises of reinforcing the leading battalion, which is engaged with the enemy, with the second, since the resistance of the foe has been found to be more stubborn than was at first expected, we shall be able in most cases during the combat of this battalion, which must last for some little time, to decide as to whether there can be any question of the employment of the entire brigade. The leading battalion can then be supported with the next, but with orders to at first carry on a delaying action and not to engage themselves too closely. The third battalion can be placed in reserve and, under cover of the delaying action, the last 3 battalions can be formed in two lines on the flank of the first three; when this deployment is completed, and not until then, this second regiment can be brought up into line with the first, and the combat thus brought to a decisive end.

If this be made the custom at peace exercises, the separate advance of battalions will become rarer in war, and consequently the mixture of bodies of troops belonging to different regiments will also become rarer.

I have mentioned that the endeavour to act on the enemy's flanks leads to an excessive extension of the first line. This endeavour is entirely justified. The first fight which I saw in the open field—that before Schleswig on the 3d February 1864—was a striking example of this.

Gondrecourt's Austrian brigade attacked the

enemy in front with unsurpassable courage, and stormed Ober-Selk and the Königsberg. But it left behind it an enormous number of killed and wounded. Two battalions were sent against the village of Jagel, and extended in front of it in a costly fire-fight, which made but a slow advance, especially after Colonel Benedek had likewise been carried to the rear badly wounded. The assailants with great exertion succeeded in penetrating into Jagel, just as a company of the "Augusta" regiment, which moved by another road, appeared on the enemy's flank. This worked like a charm. The enemy was afraid of being surrounded, and abandoned both the village and the copses with a great loss in killed, wounded, and prisoners; for the company had surprised them with a rapid fire on their right flank, and, taking advantage of the confusion of the foe, rushed in on the village. Only one man of the company was wounded, and that on the finger. A few days later the "Belgian" regiment of the other Austrian brigade, in combination with the 9th Jäger battalion, stormed the position of Oeversee, which was very strong in front. The Austrian battalions again suffered enormous losses, especially at the point where they advanced over the frozen lake against the wooded heights. It is doubtful whether, in spite of their lion-hearted bravery, they would have been successful, had not two companies of the Jägers pressed upon the enemy's right flank, and had not his left flank been also threatened by 2 battalions of the infantry regiment of Hesse which followed; he then abandoned his position, and retired.

But it must be clearly understood that such a

flank attack can, as a rule, succeed only when a second line of approach is available, or when a force can be detached while still out of sight and beyond the fire of the enemy. For unless it works by surprise it will lose half its power. If neither of these plans is possible, we can then only endeavour to outflank the enemy, by extending our front until it is longer than his, and by finally wheeling round the overlapping wing upon the flank of the foe. But troops which endeavour to turn a flank by a flank march made within sight of the enemy and within reach of his fire, will be themselves outflanked during the movement by the enemy's front, and will probably be put out of action. I have already mentioned this under the head of the "Combat of the battalion," and I must beg of you to excuse this repetition. But I have so often seen complicated flank movements made in peace within reach of the enemy's fire, that I cannot consider it superfluous to continually repeat the valuable truth, that flanking movements must be carried out in such a manner that the enemy shall not at once discover them, and shall have no time to make dispositions against them, in a word, so that the enemy shall be *surprised* by them.

If we examine examples from history where flanking movements have obtained decisive success, we shall find that they have always been the result of the use of several lines of approach, or of the early detachment of troops at such a distance from the enemy as allowed them to make use of more than one line of advance. I may mention, as examples on a large scale, the outflanking of the Austrian position at Wagram by Davoust, the

outflanking of Benedek's position before Königgrätz by the II. Army, and the turning of the French position at St. Privat, by the XII. (Saxon) Army Corps. But I should prefer to speak of the action of smaller masses of the strength of brigades, where the flanking blow was delivered by battalions or by even smaller bodies. In the before-mentioned fight at Jagel, on the 3d of February 1864, the company of the "Augusta" regiment which fell upon the Danish flank came up by the line of approach of the Guard division. In the combat at Oeversee, on the 6th of February 1864, the two companies of Jägers who brought about the decision of the fight around the wood, were detached as far back as Frörup; the 2 battalions of the Hessian infantry were similarly detached in the bottom of the Treene ravine. But I will not weary you with any more examples. I should, on the contrary, prefer to assert as a fact that the detaching of infantry, for the purpose of turning the enemy's flank, has *never* been attempted in war, when the detachment so used would have been compelled to carry out its flank march under the eyes, and at the same time under the fire, of the foe; I beg of you, if you disagree with this statement of mine, to quote to me even one single example from modern military history of such a proceeding.

Yet we very often see movements of this kind made during the brigade exercises. Ought we not rather to forbid them, and to employ the valuable time of the exercises in more natural movements, and such as could be carried out in war?

LETTER XV

THE COMMAND OF A BRIGADE

A.—*Internal Arrangements*

I HAVE proposed to myself to-day to give you my ideas with respect to the command of an infantry brigade, as this matter has presented itself to me in the course of my service, but I do not intend to offer what I write as being by any means a complete compendium of the subject. There is no need for such a treatise. Scherf has laid down the theory of the command of troops with sufficient completeness and clearness, as has also Bronsart in his book *The Duties of the General Staff*. No fresh instruction need be given beyond what is contained in these excellent works and in the new and practical drill regulations, all of these being founded upon the experience gained during the last war. I desire to concern myself with small, very small, matters only, and thus to inquire into individual questions in detail, so that where I meet with items of which the consequences have been frequently hurtful, I may point out how I consider that such consequences may be avoided. You may, if you please, think me a pedant to attach importance to such trifles. I am sure that every man of knowledge will agree with you, especially such as have

concerned themselves principally with strategy, with Clausewitz, and with the larger operations of war. But small causes produce great effects. With this: *ad rem.*

When a brigade collects at a rendezvous, whether it be as a part of a larger body of troops or for the purpose of action by itself alone, you may be certain, if you follow the movements of the very smallest bodies of troops, that 99 times out of 100 the companies assemble first in their cantonments. Each company remains there on its parade for a quarter of an hour, and then marches to the rendezvous of the battalion, which may perhaps have been distributed over several villages. The rendezvous of the battalion is sometimes fixed according to the position of the quarters of the officer commanding, and not at all on the principle of sparing the men a circuitous road, and therefore (according to the direction of the march) at the spot where the leading company is quartered. It may thus happen that a company has to march a mile to the rear in order, after waiting for a quarter of an hour at the battalion rendezvous, to return back through its cantonments to the rendezvous of the next higher unit. It may consider itself fortunate if another special place of rendezvous has not been settled for the regiment, and if the battalions are permitted to march directly to the rendezvous of the brigade. The tendency which the leaders of the various units show to join the next higher unit at the head of their united troops, is the natural consequence of a laudable effort after order, for which each commander feels himself responsible. But this tendency may be overdone. It is easy to see what

an amount of unnecessary road may, under certain circumstances, be traversed with this object, and how much the strength of the men may thus be expended without any object.

If you think that I exaggerate, go and see some of the companies, and you will notice that things are even now carried on much in the same way as in former times, when a peace which had endured for years seemed to have made us forget that we ought in peace to prepare ourselves for war. If you should say that such pedantry can obtain only in peace, and that it has its good side with reference to the preservation of order, while it would fall to the ground of itself in war, I must remind you how, in the war between the kingdom of A. and the empire of B., a certain Colonel G. received an order to move as quickly as possible in pursuit of the enemy, whom the cavalry reported to have retired during the night; that he drew in his outposts, and first concentrated his regiment on the rearmost battalion, which was cantoned 4 miles in rear of the outposts; he then gave the word, "Out markers!" dressed his troops, and at last marched off in column of sections. As men are taught and are accustomed to do in peace, so at first they will act in war.

But if by chance you fancy that anything of this sort would be impossible with us, come and accompany me to the rendezvous of a brigade, but let us get there soon enough to be before the first soldier. If fortune favours us, you shall witness and observe a useless expenditure of time and strength pushed to an extreme; this will be caused by the existence of different rendezvous for the companies, battalions,

regiments, and brigades, by the uncertainty whether the men may be permitted to take off their packs, or whether they shall only pile arms, or whether again they ought to wait with ordered arms until some instructions are received, by the constant change of formation at the rendezvous, and by the frequent repetition of the (except for the last time) unnecessary word "Out markers!" by all these much time will be lost, and much of the strength of the men will be expended, which might have been employed in practice which would be useful in war, in marches and in the combat. Under favourable circumstances twenty minutes will be employed in this sort of thing; under unfavourable ones, especially if the first alignment be not well taken up, from half an hour to an hour may be lost; and, beyond this, the exertions of the troops will have been wasted.

From the time when I commenced to command infantry it was the constant object of my study how to avoid these evils and this waste of time without injuring military exactness and order, which are the basis of all discipline. An officer who commanded a brigade under me (I acknowledge this, for I do not wish to deck myself with other people's feathers) showed me how to do it, and after this I made the whole division conform to his plan. He laid it down once for all that, whenever he ordered his brigade to rendezvous at any spot, that battalion which should first have its colour company upon the ground, should be the directing battalion for the whole rendezvous parade. In order that the brigade might be properly formed up, he ordered that the first battalion which came up was to find its correct

position, and was responsible for having done so. Each of the other battalions, as it came on the ground, had to take up its position by that of the first battalion, and had to dress on it. No battalion was permitted to wait with ordered arms, but each of them, as soon as it had taken up its position, had to pile arms, take off packs and stand easy, pending the receipt of further orders. The colours alone had to remain at attention until all the battalions had taken up their position.

Let us take an example: the line of front and the position of the right flank have been fixed upon by the Brigadier, and the left flank battalion of the second line is the first to arrive upon the spot. The Adjutant of this battalion, galloping on in front, has to measure by paces, either of himself or of his horse, the distance from the front and the right flank at which the colours of the left flank battalion of the second line should stand. The battalion then, when it comes up, marches directly to this point, takes up its dressing, piles arms, takes off packs, and stands easy. All the other battalions have then to take up their dressing on the colours of the left flank of the second line, during which there is no need to disturb the "stand easy" of the battalion which first arrived.

When the officer commanding a brigade, after all the troops have come up, gives the word "Stand to your arms!" the brigade will be found posted according to regulations, provided that the colours have been properly placed. For I assume that you know perfectly well that the regulations forbid our paying any attention to the dressing of the lines of sections of the different battalions, and merely lay down

that each battalion is to be properly dressed within itself.

Under this system the battalion which arrived first upon the ground was spared the necessity of waiting for half an hour or more with packs on ; nothing tires troops more than standing about with packs on. The men would rather be marching for an equal time.

If both these systems be taken together ; the one, which forbids the useless prescription of a separate rendezvous for each unit, company, battalion, regiment, and brigade ; and the other, which directs that the men are not to be kept in the ranks while they are waiting at the brigade rendezvous; they will sometimes cause as great a saving of exertion as will be equivalent to a march of 4 miles. It is thus possible to march an additional 4 miles in the day with troops which have been thus spared. Under certain circumstances this may decide a battle. Do you still think me a pedant? Small causes produce great effects.

You may perhaps blame me as objecting to the inspection before marching off, since it is absolutely necessary, for the preservation of due order, that every soldier shall be inspected by some superior on each morning. I consider this inspection to be undoubtedly necessary. But once in the day is sufficient. If it is made at the place of assembly in the cantonments, whether they be those of a company, a battalion, or of 6 companies, etc., before the men first march off, it will be quite enough. But to carry it out every day, for every unit and in each rendezvous would be an unmitigated evil. In war even the daily inspection by a corporal must fall through on many days owing to the want of time.

In order to ensure that the brigades practised themselves in sparing the strength of the troops in the way which I had laid down, I arranged my inspections of them in such a manner, that I arrived at the place of rendezvous before the first soldier got there, and personally attended to the system under which the mass of troops was assembled.

Let us now follow the movements of a brigade when it marches off from the rendezvous. The officer commanding the brigade frequently orders the whole to put on their packs and to unpile arms. When an infantry battalion at war strength marches off in sections, it has a length of about (not quite) five minutes' march. Given that a brigade consists of 6 battalions, the last battalion has to wait twenty-five minutes with its packs on before it joins the column; this again causes quite unnecessary fatigue. It is so simple and obvious that the men will be spared trouble, if no battalion puts on its packs until that which marches in front of it moves off. And yet this simple plan is often neglected, and that only on account of a laudable desire to do everything exactly in order. This desire cannot be pushed too far as regards small bodies of troops (such as companies), but ought not in the case of larger masses to be over-indulged at the cost of the strength of the men. If you think that nothing so unpractical as what I have mentioned above would ever be done, I will give you one example of such a case. I once had a division assembled at the place of rendezvous, and proposed to make a march of 4 miles under the conditions of war, and to end with manœuvres in attack against a marked enemy. After having given

out my dispositions I allowed the advanced guard to march off, and the exercises began. The day was hot. When the regiment which was marching at the tail of the column, as a reserve, was ordered to make the decisive assault, it was so exhausted by the heat and its exertions, that it had to rest for awhile before the closing act of the manœuvre could be carried out. Being astonished how a march of only 4 miles could so entirely exhaust a regiment, I inquired the reason, and learnt that the officer commanding had ordered the men to put on their packs and stand to their arms at the very moment when the advanced guard marched off, and this though the order of march laid down that his regiment was to be at the tail of the column. Naturally the regiment had thus to stand still in the burning sun for over an hour, and that without any necessity, whereas it might have employed this time in getting water from the village where it was and in allowing the men to drink. Do not tell me that such folly as this is rare. When the consequences of it have been once seen, then every one is wise after the event. And indeed the officer commanding this regiment was one of the most intelligent officers in the army. But he was new at his work, young, ambitious, and wished to always show his troops in good order and as smart as possible.

I had on that day collected the division at a rendezvous, and I did the same on every day that my division manœuvred, in order to have an opportunity of seeing the troops and of speaking to them. I should not do this in war, even if the whole division were bivouacked in one spot and had only

to move out of its bivouac, for in that case the regiment which marched last would be disturbed from its rest an hour too soon. I should prefer to give out the order of march and, if the troops were cantoned at wide intervals, to name the point where the brigades, etc., were to join the column. But an infantry brigade which has to march as a whole (for instance, the brigade which forms the main body of a division) cannot allow its individual battalions to join the line of march from their cantonments at different points, since some oversight might too easily be made, and this, increasing and growing in importance, might not improbably result in the confusion of the whole operation. Thus a brigade which is to move as a whole must have a distinct rendezvous.

If we accompany the troops on their march, we shall first notice the importance of the distances which the battalions and companies have to preserve from those which march in front of them. I have already said that an infantry battalion has a depth of five minutes' march. You may perhaps wonder at this, since a battalion of 1000 men in line is 300 paces in length, and must, whether it be moving in column of sections or in files, be still 300 paces in length. But in war it always marches with the skirmishing sections separate, and therefore in two ranks, and thus the depth of the column of march in sections is 450 paces. It is of the very greatest importance, when marching in time of war, to leave intervals between not only the battalions but also the companies, in order that small checks may not exercise an ever-increasing effect on the troops in rear, and in order that air may circulate between the thick masses of

men. Any one who has ever made a march of this kind (that is to say, every infantry soldier, or, in other words, some millions of men in Germany) knows how disagreeable, tiring, and fatiguing these checks are on the march, when at every moment each man, enveloped in thick dust, and with his nose jammed against the pack of the man in front of him, has perpetually to halt, not knowing either whether it is worth while to order his arms; even though the word "Order arms!" be given, he must still at the command "Slope arms!" take up his rifle again and march on.

There is a well-known principle according to which troops must occupy only one side of the road, leaving the other free for orderlies, Staff-officers, Adjutants, and men going in the opposite direction. This keeping to one side of the road is often very trying to the troops, above all to infantry who cannot on this account always choose the most convenient part of the road to march on, especially when, as on a paved road, the middle is the best part, or, when the road being wet, the best of it may lie first on one side and then on the other. For this reason no general order is so often disobeyed as this, and the very greatest attention is required from the senior officers to ensure obedience to it. In order to ease the much-tried infantry soldiers, and in order to reconcile some amount of comfort for the men with this order to keep to one side of the road, the II. Army, in the war of 1866, ordered that infantry should always march on the windward side, while Staff-officers, Adjutants, and especially orderlies should ride to leeward, so that the men might not suffer from

their dust. This system was uncommonly successful, but only in cases when the wind blew decidedly from one side of the direction of the march. When the wind was oblique to that direction, so that, owing to the winding of the road, the dust blew at one time to the right and at another to the left of the road, this order could not be carried out; since the troops did not dare to change from one side of the road to the other, for if they did so they entirely cut off all communication at the spot where they crossed the road. I was once a witness of a scene of the most awful confusion, which arose from such a change from one side of the road to the other.

The halts for rest during the march are of yet greater importance. It is rightly laid down in our army with the utmost strictness that no force of infantry shall pile arms on a road, for, if this be done, all communication by that road will be stopped. Any one who, like myself when I was an Adjutant, has once had to ride by infantry halted in such a manner, will have plenty to say about it. Commanding officers who obey this regulation and are also fond of good order, therefore make their troops, at each halt during a march, form up in a rendezvous formation before they allow them to pile arms. An immense amount of time is lost by this proceeding, and much of men's strength is uselessly expended. It is sufficient, when the halt is short, if the men, as they stand in column, turn to the right and left and pile arms by the side of the road; in the case of a longer halt the battalions can always deploy singly. If the men are to cook during the halt, it will be

better to deploy by regiments, in order to cook the common meal and to rest.

Of all measures with respect to sparing the strength of the men the most important, as regards the infantry, are those which have reference to the avoidance of sunstroke. There is nothing more terrible, as nothing is so sudden or more awful in its appearance, than an instantaneous sunstroke. It acts with the most astonishing rapidity. You may perhaps notice that the men look a little too red, and you ask them whether they are not tired or hot, and if they want a rest. This is the very worst thing you can do, for you are certain to get a deceptive answer. The more the brain is heated by the temperature, the greater is the spirit of the men. One of them answers, with an air of nervous courage: "Oh, we are all right!" and they all agree, since none of them wish to appear weaker than the others. A few minutes later a man falls, and instinctively pushes his head into a bush by the road, in order to find some shade there out of the burning rays of the sun. Two of his comrades are ordered to take him up, but they fall by him. All the men see this, and in an instant all their former courage changes to an opposite feeling. A general panic seizes them, and terror affects their limbs, for nothing to a private soldier seems more terrible than an invisible enemy. Then ten, fifteen, or perhaps twenty men all fall together, some from fear, others from giddiness, and others again from exhaustion intensified by fear. At such moments one feels oneself without resource, since there is no one to carry those who most need help out of that dangerous place. For the last shock

always comes at some definite point, either a ravine in which there is not a breath of air, or a turn of the road upon which the sun beats with special vehemence. Every one who comes to the spot is seized with faintness, as by a demon.

We must not let it go as far as this.

The doctors recommend many things as good against sunstroke. But they are not all practicable. You should therefore employ the cool hours of the evening and morning for the march, and rest during the hot hours in the middle of the day. But when large masses of troops have to march on the same road, individual detachments have no choice with respect to the hour of their march; the road is covered with troops day and night, and each body of men must use the hours which are told off to it. Moreover, on the day before the march, when the orders for it have to be drawn up, we cannot tell what the weather will be. I remember one occasion when, at the time that the orders were issued on the day before the exercises, the weather was so cold that the men were directed to wear their cloth trousers. On the next day it suddenly became very hot and damp. The principal point upon which the doctors lay stress, is to let the men drink as often as they can get water. They further direct that on very hot days the collar and the upper buttons of the tunic shall be unfastened, and that the men shall be allowed to take more rest than would appear to be necessary on account of their fatigue. It is, moreover, important to march with greater intervals between the companies, and finally to keep a careful watch upon the look of the men. Every one knows that men who feel the

heat grow red and perspire freely. But these signs are no proof of sunstroke. But when the redness of face of many of the men takes a bluer and darker colour, it is then full time to take the column off the road and to pile arms, in order that the men may rest and get water to drink, for this dark blue colour, which is accompanied with perspiration, will be succeeded by a stoppage of the latter, while the skin will become perfectly dry and of a pale brown. The appearance of these signs of sunstroke upon some of the men show, as a rule, that it is then too late to make any arrangements of which the execution will require a certain amount of time. I can only repeat that there is but one thing to be done when the temperature renders sunstroke probable; that is, "to halt frequently and to drink water."

I have now occupied your time long enough with elementary details, which are not after the taste of tacticians and strategists of genius. But they also have much to do with the conduct of troops, and ought to be learnt and carried out. For what is the use of the most skilful dispositions, if the troops are incapable of reaching their enemy, or do so with only half their strength, or in a condition which renders them unfit to fight. We beat our enemy quite as much with the legs as with the rifles of our infantry. How will it be if we take all the strength out of those legs by making faulty arrangements for the conduct of the march? I could name to you a Colonel of a regiment of infantry—but I will not do so as on that same day he died a hero's death—who, in order to arrive in time to give assistance at the battle of Vionville, marched his regiment in close

order, while he continually cried: "Forward! Forward! Come what may!" and who left numberless exhausted men behind him on his way. The assistance which he brought would have been far more valuable, if he had arrived half an hour later but with double the number of rifles. He would neither allow the men to halt nor to drink water. On the other hand, the Guard Corps marched early in the morning on the following day from the road Dieulouard-Bernécourt-St. Mihiel to the northward in stifling heat; but it took sufficient time to allow the men to occasionally take off their packs, moved by five different parallel roads, kept wide intervals, and halted frequently. It thus by 10 A.M. reached Hagéville without any loss by stragglers, and was there ready, if Bazaine had on the 17th ordered his intact reserves to make an attack, to assist the Army Corps which had fought on the preceding day.

You will ask me perhaps why I do not hold forth with the same zeal concerning the boots of the infantry, and you are quite right to ask. I should certainly have a great deal to say about the subject, if that exceedingly important matter had not in these latter days been so fully discussed from every side that there is nothing more to add, and if it were not that I consider our infantry boots to be very good. There is only one point concerning this question of boots to which I should like to invite your attention. At the beginning of a great war the men have to travel for days together by railway. During this time their feet swell. Moreover, the men, when they are called out, receive new boots

which have been in store for a long time and have become hard. On leaving the railway they have, as a rule, to make long marches. For this reason many men suffer from being footsore and become stragglers, unless indeed a short halt be very frequently made and the boots be then inspected.

In order to offer you some compensation for writing of these apparently wearisome matters, I will, in my next letter, speak only of the applied tactics of infantry.

LETTER XVI

THE COMMAND OF A BRIGADE

B.—*Tactical Handling*

WHEN a large mass of troops has been called into action in war or at the manœuvres, the local position of its commanding officer is of the greatest importance to it. You know already that the form of the orders for the day and for the marching and fighting dispositions of each Army Corps, as issued by the General Staff, always contains information, either at the beginning or at the end, as to where the officer commanding is to be found. There was a standing order in the II. Army, in the war of 1866, that each officer commanding a regiment was always to march at the head of his command. The officer commanding a brigade must also, equally with the corps and the divisional commander, let the troops know the position in which he will ride or stand. But this is not sufficient; he must in addition remain in this position, and must on no account leave it, without at least placing some officer there who may give information as to where he has gone. It may very well happen, it must indeed happen every day, that the officer commanding finds its suddenly necessary to ride here or

there. He hears fighting going on on his right or on his left, and wishes to get to some hill which offers a good view and lies away from the road, in order to see what is taking place. Or there is perhaps a hill from which he wishes to choose his ground, or he may desire to go to it in person in order to see if it offers a good position for his troops; or among the troops in front or in rear of him he may notice some irregularity, which he wishes to check;[1] in short, for some reason or other, he spurs his horse and rides off, his staff following him without knowing where he is going. He perhaps at first wishes merely to ride a few hundred paces off the road to some height, from which he can get a good view, but when there he finds his attention attracted to another point, and he rides on farther without any one thinking of sending information as to his movements to the spot which has been before named as his position.

Something of this sort so often happens, that it is well worth while to draw attention to the fact. Since, when it does happen, the officer in question breaks off, as it were, one of the most important teeth of the train of wheels which makes up the mechanism of command, and may think himself very lucky if the machine does not stop altogether. I spoke to you in my *Letters on Cavalry* of a case where the officer commanding a division rode

[1] It is of the very greatest importance that he should exercise a control over the correct observance of the directions for the march and see that the order of march is carried out according to the instructions given; he must also keep his eye upon the troops, and ride quickly in person to any point where his presence appears to be needed.

forward to reconnoitre, and was unable to find his division, nor it him, during the whole of a day of battle. I was at one time in charge of the outposts at some manœuvres, and my superior officer had on the previous day stated in his orders that up to 7.30 he would remain in his cantonments, 9 miles in rear of my position. To that point I sent at daybreak some report with reference to the enemy. The officer who carried the report, having a good horse, took only three-quarters of an hour to do the distance; but my superior officer had already started at 7 o'clock. The officer now set to work to look for him, and found him an hour later far to the front, in the outpost line, and about 2000 paces from my position. The unfortunate young officer had ridden his best horse almost to death, and yet, after the hour of his departure and of the receipt of the report had been compared, he was greeted with the words: "You don't seem to care much about riding fast, since it takes you an hour and threequarters to ride 2000 paces." Moreover, the report concerning the enemy arrived too late to be of any use.

It happened at some other manœuvres that the General commanding a combined infantry brigade left his place in the column of march, in order to see whether a position which lay on his right was defensible. In the meantime a report came in from his cavalry about the enemy. He could not be found; the officer who brought the report hunted about in the direction in which the General had ridden. By bad luck the latter was an exceedingly good rider and had a most excellent English half-bred horse, so that it was impossible to catch him

up. The brigade kept on marching to the front, though the report, if he had received it, would have compelled the General to take up the position in question. The brigade in column of march thus came directly upon the enemy, who surrounded it, and the General hurried up only in time to take charge of a fight which was going very much against him. After the fight he received the report.

We often read in military history how some order or some report failed to reach the spot to which it was sent. This happens even more frequently than we know, since the fact is mentioned only when it has had serious consequences. Seldom, I may almost say never, are we told that the fault lay with the person to whom the report was addressed, and yet it is certainly quite as often his fault as that of the bearer of the message. The blame is generally laid on misplaced zeal. The higher the rank of the leader the more slow and deliberate should he be in abandoning that position where both his superiors and his inferiors expect to find him, however good a horseman he may know himself to be. The officer commanding our corps in the war of 1870-71 remained always with the greatest steadfastness at that point or at that place in the column which had been given out to the troops as his position. If he left it in order to reconnoitre, the Chief of the Staff remained in his place with full power to issue orders in his name if necessary; but as a rule it was the latter who was sent forward to reconnoitre. Our General had had experience in the same position in the war of 1866. It thus came about that no officer

carrying a report had ever to seek long for him in any battle or combat; no misunderstanding ever happened, while during the whole of the war the mechanism of command of the Guard Corps moved like clockwork and left nothing to be desired. Of course what I have said does not apply to moments when there was danger in delay; for example, when the attack on St. Privat threatened to make no farther advance, while the losses were becoming terribly heavy, the General in command of the corps pushed forward into the foremost fighting line and gave his orders from thence.

Such exceptions do not invalidate the rule. No one would reproach Prince Frederic Charles with the fact that on the 16th of August he left his head-quarters at Pont à Mousson, to which all reports were ordered to be sent, and arrived in half an hour at the battlefield of Vionville-Mars-la-Tour (which was 9 miles away), though only two of the six corps under his command were engaged there. No one will blame General von François for having placed himself at the decisive moment at the head of the 9th company of the 39th, and for having bought with his life the secure possession of the Rothe Berg, even though he thus for the moment left the 27th brigade without a commander. But in these cases the situation was not an ordinary one. Moreover General von François, with respect to his personal position, did exactly what, in my opinion, he should have done even in a prearranged combat, for he did not leave the place from which he issued his orders to his brigade until his last reserve went forward into action; he fell at the head of his last

company, for all the rest had been already thrown into the fight.

The leader of a smaller body of troops can perfectly well ride about within the limits of his command, since the latter is not so extensive but that he may be easily found from any point in his part of the action. This is the case with respect to the officer commanding either a company or a battalion. The officer commanding a regiment should be obviously a little slower to move. But the officer commanding a brigade should, as a rule, leave his chosen point or his place in the column of march only under the following conditions :—That he either leaves some one posted or riding in his place who may give information concerning his movements, or that he gives over the command during his absence to the senior regimental commander who is present with the column. He must also remain in one position when the brigade goes into action, and has no right whatever to expose himself prematurely with the leading company, since he thus unnecessarily endangers the unity of direction of the brigade. He may certainly be sometimes compelled to expose himself at first in order to rightly estimate his position, to reconnoitre, and to make his dispositions. When the last reserves of his brigade go forward into the struggle, then, but not till then, his proper place is generally in the foremost line.

It might appear as if a rule of this kind tied down too much the personal movements of the leaders. But this will always be the case in war ; even the officers in supreme command have no personal liberty. During one of our campaigns I

reported my arrival at my appointed position to the officer who was in supreme command over me; he was standing on a hill. We could see and hear a hot fight going on to the right and left of us at a distance of more than 4 miles. "I am in a very uncomfortable position," said the General. "One of my Army Corps is engaged on my right, and another on my left. To-day's battle is a decisive one for the army, and I am compelled to stay here doing nothing except smoke one pipe after another, since I have ordered all reports to be brought to this hill, and, if I leave it, I shall bring confusion into the entire direction of the army."

When the brigade passes from the march to offensive action the Brigadier will endeavour, as soon as the leading battalion meets with a stout resistance, to surround the enemy and to outflank him. We can recognise an effort in this direction in every fight during the last war. As soon as we have, even if only half, made out the nature of the enemy's position, we ought at once to detach troops towards his flank. But, as I have said before, this detachment can be of use only if it be made so far back, that the troops which are directed against the hostile flank can carry out their movement beyond the reach of the fire or the zone of action of the enemy, and thus to a certain extent by using another line of approach. Thus we find, in the example which I have quoted already of the fight at Oeversee on the 6th of February 1864, that the two companies of Austrian Jägers turned off the road to the left as far back as Frörup, in order to strike the enemy's

right flank; while the 2 battalions of Hessian infantry wheeled to the right in the neighbourhood of the Treene brook. If in such cases the nature of the ground affords no cover in the neighbourhood of the enemy's position, the troops which are told off for the outflanking movement must prepare their blow a long way in rear. Thus we see how, at the beginning of the battle of Spicheren, the 2d battalion of the 74th Regiment, which had already advanced on the right flank from Deutschmühle to Drahtzug, was reinforced by the 3d battalion of the 39th Regiment (3 companies) from Repperts Berg, with the object of threatening the left flank of the enemy's position on the Rothe Berg, though the latter was still 2 miles away. (See the Official Account.) Since the distance to be passed over by the troops which are sent against the enemy's flank will tend to grow greater, owing to the increased range of rifles, these troops will get more and more out of the direct control of their Brigadier. The greater the circuit which they will have to make, the more will they be separated from their General, while the difficulty of ensuring their punctual entrance into action and a satisfactory effect of their fire will be so much the more increased, as infantry have not the same power as cavalry of shortening a distance by adopting a more rapid pace. (The French newspapers at the time of the Crimean war certainly reported that this or that brigade, or even division, went for miles at the *pas gymnastique*; I simply do not believe it, and every infantry man will share my opinion.) The troops which are to execute the turning movement will thus be left to

themselves; while those who are to attack in front will be very much puzzled as to the moment at which they ought to push in their main attack. If it takes place too soon, it may be beaten back before the turning force is engaged; if it begins too late, the outflanking troops are in danger of being cut off by the enemy, and of—excuse the vulgar expression—running into the jaws of the foe.

The difficulty of bringing a flank attack into action at the right moment is therefore very great even in peace manœuvres. I have indeed been present at manœuvres without an enemy (that is to say with a marked enemy who could be moved as one pleased), where I have found such an attack impossible. The turning troops lost their direction, and mistook one hill for another, since the ground when seen from a flank looked quite different; and then some misunderstandings arose; in short, the whole thing came to grief. In war the object to be outflanked is certainly better pointed out by the very nature of the contest than is the case in peace manœuvres against an invisible enemy, but in war we suffer from uncertainty and doubt of quite another kind. Moreover, in peace it does not very much matter if a movement does fail once; since, as General von Schreckenstein used to say: "Errando discimus." But even in manœuvres without an enemy such a failure is unpleasant, since the officer who carries out the manœuvres wants to see his subordinates work out the movements according to, and not contrary to, his will. After I had *in praxi* had some very unpleasant lessons in this respect, I and my subordinates drew up the following system

for enabling a flanking movement by infantry to come into action at the right moment.

At manœuvres without an enemy, or when the enemy is only a marked one, the leader, after he has instructed and detached the troops which are told off to make the turning movement, must carry on the frontal attack in such a manner that the enemy's front shall for the time be merely occupied by a delaying fight, while the force with which it is intended to make the real attack is temporarily held back. The leader should then go as quickly as possible to the troops which have been sent against the flank, in order personally to lead them to the spot whence they are to attack. When they have been formed up in accordance with his intentions and are ready to advance, and when also he has ordered the advance to begin, he will return quickly to the front and lead the main attack. (General von François acted thus at Spicheren—see the Official Account,—for he rode up first to the right wing and made his dispositions there, after which he handed over the command of that wing to Colonel von Pannwitz and returned to the Rothe Berg.) If it is impossible for the leader to ride thus backwards and forwards, he must at least place himself on that wing of either the front or the flank attack which is nearest to the other. If his troops have learnt to carry out the flank attack according to his wishes, he may take it for granted that the turning troops will come into action properly without his personal supervision, for in manœuvres against an enemy, or in war, it is not always possible for him to leave his main body of attack, and he must therefore generally

remain with the frontal attack. But he must leave a mounted officer with the turning troops whose only duty it will be to gallop to him and report when these troops have reached some named point. The leader himself must remain on that flank of the frontal attack which lies next to the out-flanking troops.

You may perhaps think that it would be possible to judge, by the noise of the combat, whether the out-flanking troops have advanced so far that the time has come for energetic action on the part of the frontal attack. But nothing is so deceptive as the noise of battle. It has sometimes happened that nothing whatever has been heard of a not very distant combat, in cases where it took place to leeward or in a ravine. When we were before Paris 24-pr. shells used to fall among us from St. Denis, without our troops hearing anything of the explosion. Among mountains one may be deceived by the echo as to the direction from which a sound comes, while even on level ground one's hearing may be cheated. I still remember very well an occasion when we were exercising on level ground, and when I mistook the fire of some troops which were on my right front for the commencement of the action of the turning party, for which I had been waiting, and thus altogether spoilt a part of the manœuvres. But why do I write to you about this? Were not you yourself present in 1866 at the celebrated alarm of the "Woylach,"[1] when the beating and the shaking

[1] A "Woylach" is a woollen cloth which, when folded in eight, is used by the Hungarians as a cover for the saddle. (Note of the French Translator.)

of the "Woylachs" in a narrow valley re-echoed back in such a deceptive manner, that it sounded like a hot fire of infantry in rear of the bivouac, and spread trouble and fear far and wide among the train? In a similar manner, at some manœuvres in slightly undulating ground in Alsace during heavy rain, we all thought that a hot fight had suddenly begun behind a hill on our flank; so much so that a party of men was at once sent in that direction. But there was nothing to be seen. The fight was taking place 3 miles away, where another brigade was practising detachment exercises.

But every one knows that if there is to be good hope of a favourable result, the attacks on the front and flank must work together in harmony. The enemy's front must be first occupied by a delaying action, in order to hold his attention until the flanking troops can begin their work, otherwise the foe will soon observe and crush the movement which threatens him. But as soon as the effect of the flank attack begins to be felt, the enemy must be pressed in front also with all our force, for he will be very sensitive about his flank, and would otherwise be able to move troops from his front to cover it. It has happened that the flank attack has so absorbed the enemy, that the frontal attack has finally succeeded in giving the decisive blow. The most remarkable example of this kind is the storming of the Rothe Berg in the battle of Spicheren. This position, from which the enemy kept up a murderous fire from successive rows of trenches over the ground in front, which was open to his view for a mile, appeared from the front so impregnable that we

began by pressing upon both flanks. The advance was made on the right by Drahtzug, and on the left by Tief-Weiher. The two attacks seemed at first to make some progress, but they were unable to press forward beyond the Southern edge of the Pfaffenwald and the Gifert Wald, while on the right wing the fight swayed backwards and forwards in the Stiring Copses. Even after 1 P.M. the direct attack of the Rothe Berg was considered to be impossible. "Some attempts made by a few daring men were defeated." (See the Official Account.) But about 3 P.M. the attention of the enemy had been more attracted to the right, and the Fusilier battalion of the 74th Regiment, followed by a company of the 39th, climbed the rocky heights and *surprised* the enemy's Chasseurs in their shelter trenches, though two hours before these troops had seen them advance over the low ground in their front. The battle was practically decided by the storming and occupation of the Rothe Berg, since though the enemy afterwards made some advance into the Gifert Wald, his attacks had no longer any staying power; at Stiring Wendel the fight continued to fluctuate until 6 P.M. But the bastion of the Rothe Berg continued always in our possession.

But such well-timed action in front and flank will be always very difficult to arrange. It requires the possession of a tactical eye, which can form a correct judgment as to the enemy and the ground; it requires great personal activity on the part of the officer commanding the brigade; and it requires above all a calmness of iron, which will not allow itself to be carried away, or to be induced to attack hurriedly or

before the time, but which understands how to wait patiently for the right moment. Even with all these it is still possible that some unforeseen event, some accident, or some misunderstanding may ruin the effect of the turning movement. Critics will, of course, after the event express their wonder, and say: "But why was not the flank attack made against such or such a point?" "La critique est aisée, mais l'art est difficile."

It seems comparatively an easy matter to strike the flank of an enemy when you are in possession of a favourable defensive position, with your reserves echelonned in rear of your flanks, so that they can by a direct advance from these points surprise and outflank any turning movement of the enemy; or can, in case the foe may make a frontal attack only, push forward and, wheeling in on his flanks, strike a blow at them at the moment when the struggle is at its hottest. The element of surprise which no flank attack can dispense with, is in this case more easily obtained, since a defensive position is generally selected on the crest of a height which conceals everything lying behind it. Our combats in our positions around Metz and Paris offer many examples of such sudden outflanking movements made from a defensive position. But the best example is the counter-attack of the French infantry from Amanvillers against the artillery of our IX. Corps (see the Official Account) in the battle of the 18th of August 1870.

In order to carry out such counter-attacks with the greatest possible effect, we must, when we take

up a position, occupy the front with as thin a line of infantry as possible, and must echelon as large reserves as possible in rear of each flank. Since we are now able to throw up shelter trenches with the spades of the infantry in a shorter time than was formerly the case, we shall in most cases be able to spare yet more men from the front, and these we shall hand over to the reserve. But in connection with shelter trenches there is one point which I must mention, for it has frequently annoyed me very much at the manœuvres. I do not know why it is, but, great as is the objection of the German soldier to making trenches in the ground and to occupying a defensive position, and infinitely as he prefers to be let go in action and to strike a direct blow, when once shelter trenches have been made they exercise a marvellous attraction. How often at the manœuvres do we see a rush made into the shelter trenches, so that they get quite filled up, and the men at last lie so close together in them—even if they do not lie one on the top of the other—that each of them prevents the other from firing. Moreover, the trench is often so narrow and so shallow that the cover which it affords is a mere illusion, and at least the feet of the men stick up in rear and serve as a sort of butt for the bullets which miss their heads. Unless it be insisted on that the shelter trenches shall be made sufficiently wide and deep, the men get an entirely false idea as to their value. The same is the case when too many men are crowded into the trenches.

Again, I must admit that many false notions arise from peace manœuvres, for the reason that there are

then no losses in action, and there is always a temptation to crowd up the shelter trenches along the front, as soon as it becomes necessary to make use of the supports at the moment of the crisis; but these supports, in a real action, would be employed in replacing the casualties which occur, and in keeping up, in spite of such losses, the full power of fire of the shelter trenches. For in real work the enemy's bullets will take very good care that our lines are not too crowded. We must, nevertheless, never permit ourselves in peace to be tempted to over-fill the shelter trenches with skirmishers, and if we want to show that the supports have been pushed in, we should only allow them to come up and fire one volley, after which they should fall back again. When I picture to myself a well conducted fire-fight carried on from a shelter trench, I think that each man (having his pack on the ground by his side, so that he may use the cartridges out of it) must occupy 2 paces of front, if he is to be comfortable and to be able to shoot his best. No shelter trench ought to have more than one man to every 2 paces. Thus 500 men will occupy a front of 1000 paces, and a battalion therefore, at full war strength, will be sufficient for from 800 to 1000 paces of shelter trench, for which it will supply the firing line and the necessary supports immediately in rear. I therefore think that if a brigade is to occupy a line of shelter trenches from 1600 to 2000 paces in length (about a mile), I should divide this line into two halves, occupy each half with one battalion (taking one from each regiment), and should echelon the other two battalions of each regiment in rear of

either wing, as a reserve, placing them so that they overlapped the flanks.

Since I am now in the humour for criticising, I will mention a matter which has struck me at all manœuvres, and not there only, but also often in war. I have already told you, when I wrote to you on cavalry, that we generally find, when cavalry take part in an infantry combat by making a charge, that the infantry, as soon as they are no longer able to continue to fire, watch the cavalry charge, with all sympathy and good wishes no doubt, but without doing anything at all themselves; instead of this they should, of course, make use of the moment when the enemy is no longer firing at them to rush to the front and gain as much ground as possible; they should even, if it be in any way possible, lighten the task of their own cavalry by firing on the foe at the very shortest ranges. A sort of feeling of ease and freedom from care comes over the infantry at such a moment; they watch the drama which is being played before their eyes with wonder and curiosity; it is just as if the brother infantryman said to his brother cavalryman: "It's your turn now, Bill!" I have, at various different times at the manœuvres, worked out charges of this kind against a marked enemy. Although I had mentioned beforehand that it was my express intention to afford the infantry an opportunity of practising combined action with such a charge of cavalry, I had every time to ride up or send to them in order to make them get forward at the favourable moment.

This want of energy in action, which is utterly

foreign to the nature of our infantry, arose simply from the fact that they were not accustomed to work like this, and had indeed never yet so worked. They had not had sufficient practice in attacking a common object in combination with cavalry.

The action of infantry which suddenly assist cavalry in their charge with a rapid fire at a short range has a most powerful effect, especially against hostile cavalry, since it cannot fail to take them by surprise. In order to judge of this it is only necessary to read the description of the cavalry combats at the battle of Königgrätz, as they are related in the Official Account; you will there see what influence the advanced detachments of Prussian infantry which, for the most part, pushed on independently, exercised on the result of the grand cavalry combat. This was especially noticeable at the points where the masses of brave Austrian cavalry gained an advantage, for their charges broke up before the unexpected rapid fire, which struck them from Stresetitz and Langenhof; even the scattered skirmishing sections under Lieutenants Daum and Oldenburg, which had advanced as far as the sheep-farm at Langenhof, were of great weight in the balance; until at length the Prussian cavalry regiments, as they gradually came up, became numerous enough to drive back the Austrian cavalry altogether.

I see you smile at this, and seem to hear you say that I have now exactly shown that there was no such want of energy on the part of the infantry during the cavalry charges as that which I have just been blaming. As regards this one case you are

certainly right. But has this been done everywhere and always? I must beg of you to excuse my not giving you examples from actual war which might tend to throw blame on some one. I do not feel justified in doing so. A cavalry combat sways backwards and forwards, and its result is always uncertain. Quickly as it may gain ground, it may lose it again with equal rapidity. The victory of cavalry obtains its first real hold when the infantry have come up; they give a provisional certainty of occupation, until the artillery comes into position on the captured ground, and with its bass voice sets the final seal of possession. Both these Arms, the infantry in the first line, must therefore lose no time in making good the success of the cavalry.

As a rider to my remarks on the action of infantry in battle in combination with cavalry, it may be well to say now a few words as to the action of infantry against cavalry. I might simply refer you to the behaviour of our infantry in the campaigns of 1866, 1870-71, since in them they were ever victorious. They there acquired the conviction that infantry, which has no fear of its foe, is invincible by cavalry, and they have afforded a practical proof that this is the case without reference to the formation in which the infantry may be. Numberless episodes from the battles of Gitschin, Königgrätz, Wörth, and Sedan, show plainly that this is a fact; these I need not recall to you. You may perhaps smile again at this, and may draw my attention to the fact that, in my *Letters on Cavalry*, I asserted that that Arm might still be successful against infantry, and that they were

not to be blamed, even if they charged intact infantry. But, my dear friend, you must remember that Prussian, that is to say German, cavalry will never be called upon to charge Prussian, that is to say German, infantry. What I said was certainly not altogether scientific, nor very general in its application. But I am not writing a theoretical abstract work; I am chattering to you about certain individual cases, as Prussian and German officers talk among themselves over various special matters.

Since the war of 1866 a custom has grown up among our infantry of no longer forming square against hostile cavalry. This system was laid down for the whole army, by an order of the day, directly after the first success of the battalions of the Body-Guard regiment at Gitschin, where standing in line they repulsed the most resolute charges of the enemy's cavalry. I believe that during the whole of the war of 1870-71 no case occurred where German infantry formed square to resist cavalry, if we except the band of the 5th battalion of Jägers at the battle of Sedan, as is exactly represented in the panorama in the Alexanderplatz at Berlin.

I consider that the real cause of this circumstance is the fact that, owing to the great range of the present infantry rifle, the cavalry has to make a very long round, if it proposes to get on the flank of a line of infantry, and that thus the infantry line has sufficient time to change its front and to meet the charge in the new direction. We find that lines of skirmishers have remained lying down when charged by cavalry and have fired on the latter; even when the charge passed over them they were not destroyed, nor did they indeed suffer very severe loss, since horses,

as a rule, avoid treading on a living body and do their best to jump it; as soon as the charge had passed, the skirmishers fired on the rear of the cavalry, as they (at Vionville and Sedan) rushed on against the closed companies which waited in line to receive them. As early as 1866 skirmishers very often remained lying down when cavalry charged them. It has been related to me, with reference to the cavalry charges which were received by the 2d and 3d companies of the 21st Regiment in front of the wood of Sadowa, that the firing line, as they lay, repulsed every charge, and that only one man was wounded by the cavalry, and he, while he was *endeavouring to fall back on the supports.* But in order that they may act like this the infantry in the first line must be well instructed, must never lose their presence of mind, and must have confidence in their rifles. We now generally see lines of infantry and swarms of skirmishers, when they hear on the exercise ground the call, "Prepare for cavalry!" change front in the direction from which the cavalry are supposed to be coming, and commence either a rapid fire or volleys with the 400 yards' sight.

I have on such occasions frequently noticed that a part of the line wheels back in order to take up the same fighting front as the remainder. But I think, especially in the case of firing lines, which must carry out such movements at the double, that this manner of changing front is very objectionable, since the troops which so change front turn their backs upon the enemy, and must as it were run away from him. There is nothing more demoralising than to turn one's back upon the enemy, especially when the

latter consists of cavalry, and is riding after one The heart of man is so fashioned that certain things have a great effect upon it. It is one of the most objectionable peculiarities of forming square, that in order to do so the men have to run before the cavalry; for every soldier begins to think that he is lost unless he runs as quickly as he can. We have very recently read how the Egyptian troops at Suakim, though they had been supplied with the best rifles, allowed themselves, when once they had begun to run before the enemy, to be shamefully spitted by savages who were armed only with spears. All this arises from the fact that men, as they run away, cannot see what the enemy is doing. It is quite another thing when one runs to meet the enemy. Moreover, when infantry run to meet cavalry, the latter are impressed and the horses have a tendency to shy. For this reason I have always insisted that the changes of front which are necessary should always be made towards the enemy's cavalry, even though here and there the result was that, instead of a straight line, I had a broken one, or one formed in echelons.

It appears to me that our infantry, as they are now constituted, might give up the square altogether. But an inferior infantry—whether it be that, owing to the newness of their formation, they have not sufficient cohesion, or if for the same reason they are not sufficiently skilled in shooting and are thus wanting in confidence in their rifles—may very possibly be compelled in the future to revert to the square formation.

We have indeed during the last few weeks seen

the English moved at Suakim in large squares, though fighting with savages who were miserably armed. The bare correspondence in the newspapers does not enable us to judge as to the grounds on which this principle was adopted, and we cannot, therefore, give an opinion as to whether it is, or is not, to be commended.

LETTER XVII

THE SPIRIT OF THE INFANTRY

THE brigade is the largest body of infantry which carries out purely regulation exercises without any combination with the other arms. It is also the largest body of infantry which is likely to be used in war under one undivided command without being combined with any other arm. For this reason I propose to close my talk about infantry, which I began with the mention of the very smallest units, with the infantry brigade, though I know that I have not said all that there is to say with respect to this the most important of all the arms. But I only wanted to tell you what was in my mind, and what has suggested itself to me in the course of my time, and had no intention to write about any tiresome scientific theories. This is the reason why I have so often tormented you with special and apparently small details, but such as I consider to be important, since what is the use of the best constructed instrument if it is not made of good material, or what is the use of the most beautiful sword, if it is not sharpened, or if its edge has become dull with rust?

But of what use also is the sharpest and best made sword, if the arm which guides it does not

know how to strike properly, and is not resolute to strike? In the same manner, what is the use of the best organisation for infantry if they are not inspired with the proper spirit? I mean a real spirit, a true soldier spirit, not a mere passing enthusiasm.

The true soldier spirit is a very different thing from the enthusiasm which is evolved by the cause of a war. It is certainly a beautiful and stirring thing, this enthusiasm, when it seizes on a whole people. It leads to grand resolutions, and inclines a whole nation to make great sacrifices. How often have we all, long before 1870, envied our fathers their experience of the enthusiasm of 1813, and have hoped ourselves to live in such a time; and who does not remember with emotion the noble enthusiasm which set all Germany in motion when, in the year 1870, our dearest possessions were threatened by a sudden danger! How instantly then, on the banks of the Rhine as well as on those of the Memel, did every school and every singing club, as if seized by some marvellous spell, break out into a song which had up to then been totally unknown, "Die Wacht am Rhein!" How the whole German people rose like one man, and crowded around their princes who had themselves but one object—to defend the Father-land! How many societies assembled together and collected enormous sums to help the warriors and the wounded! Look how the discharged men of the *Landwehr* and the reservists refused to wait for the order for mobilisation, but in many cases joined the colours before they were summoned to them! How the Reichstag with one voice (except certain great financiers, whose covetous hearts clung to the Bourse

at Paris) agreed to everything which the governments of the North-German Confederation demanded for the expenses of the war, and, instead of debating about the amount asked, answered with an enthusiastic hurrah! This was true enthusiasm; and it bore good fruit, for it did great and grand things, and was a strong support to the governments.

But such enthusiasm as this could not last during the whole of the war in the case of those who had to carry that war through. When dreary and fatiguing journeys by rail, which lasted twice and three times twenty-four hours, shook up their bodies; when, immediately after these almost sleepless nights, forced marches in closely crowded columns and in stifling heat utterly tired out their strength; when the days came, in which the masses of men lying closely together on the plateau near Metz could not find a drop of spring water to drink, and had to content themselves for cooking with the evil-smelling water of the brooks which were running dry owing to the long drought, so that, to my knowledge, a soldier vainly offered another a mark for a cup of such water; when also, during the battle, thousands and thousands of the enemy's bullets, fired at unheard-of ranges, fell around the exhausted and weary men who had found no time to eat during the whole day; when the as yet unknown mitrailleuse savagely growled; then their enthusiasm died out, then the ardour, which had been aroused by this holy fire, cooled down, and changed into a cold calculation and a quiet determination, or even into that desire of self-preservation which is natural to every man. Then not enthusiasm, but the spirit which filled the

troops held the balance between all these contending elements; that spirit which outlasts all fatigues, privations, and dangers, which inspires men's hearts and is one with their life, and which holds its empire over the body so long as there is life in it.

How can you recognise this spirit, how does it show itself outwardly? Look at our infantry of the years 1870-71, and you will know what this spirit is.

"Why the infantry and not the other arms?" you ask. I know well that the other arms were inspired with the same spirit as the infantry, but their spirit is not so sorely tried with deadly weariness as is that of the infantry, and they have compensations, such as being mounted or belonging to a special arm, which are denied to the modest infantry soldier, who feels himself to be but an atom of a huge mass, and knows that he has been contemptuously nicknamed "Stubble-hopper" and "Food for powder." Moreover, the proper soldier spirit is far more necessary in the case of infantry than for the other arms. A skilled cavalry leader can gain great success with very moderate cavalry, as Murat entirely understood, for he knew how to make his cavalry charge in mass at the right time and in the right direction. In the artillery a few trustworthy men with each gun are sufficient, while those who are less trustworthy can at least do their duty. But in the infantry every man must be inspired with the true spirit, and each man who is not so inspired is a source of weakness to the whole.

We have heard that "The spirit of the Prussian Army lies in its officers." Certainly! It is they

who in the unwearying fulfilment of their duty have trained the private soldier in peace, who out of a clumsy labourer or artisan have made a practised soldier who knows how to handle his arms, and who have taught the raw and half-educated spirit of the private soldier a sense of duty, honour, and fidelity to King and Fatherland. It is they who in peace set a good example by their Spartan self-denial, by their unresting energy, by their feeling of honour, and by their close bond of comradeship. It is they who surpass the men in skill in all exercises, and who in battle lead the way in danger, paying three-fold more than the others of the debt of blood; and this is true of all, from the General down to the junior subaltern. General von François, after he had carried through one of the most heroic of all deeds, the storming of the Rothe Berg at Spicheren, said, as he lay dying pierced with five bullets: "Death on the battlefield is a beautiful thing." General von Raven in 1864 said, shortly before his death: "It was time that a Prussian General should once more die for his King." In like manner have hundreds and thousands of officers of all ranks fallen, envied by their comrades for their grand fate, and affording a brilliant example to their men.

But was this example needed? Would our men not have fought well if the officers had not sacrificed themselves in a double or treble proportion? Has any one ever heard any such cry issue from the ranks of our infantry as: "Les épaulettes en avant?" Never! I certainly said above that the troops did not fight so well when they were without officers, but that arose only from the fact that the men, in

their quality as soldiers, feel themselves to be the handiwork and the creation of their officers, and are accustomed to carry out their will. This feeling found expression in the speech which I have already mentioned: "We had no officers left to tell us what to do, so we went away." In other respects the spirit of the men is the same as that of the officers. They are inoculated with it by the officers, and it has taken deep root in them. "When the Lieutenant runs in, we must run in too," says the soldier. This, though in a somewhat uncultivated form, is an expression of the same spirit as inspires the officers when they carry out absolutely any order which they may have received, with intelligence certainly and with tactical knowledge but without wishing to criticise the order, for the very reason that it is an order. This spirit is the full expression of confidence and of discipline.

Neither of these can be separated from the other; for the discipline in our army is no longer that of the last century, when a celebrated authority laid it down as a principle that the soldier should be made to fear the lash more than a bullet. It is no longer founded only upon fear of punishment, but springs principally from the soldier's confidence in his superiors. It is certainly the fact that many a soldier, as I have mentioned in an earlier letter, joins his regiment with such raw and childish ideas regarding what constitutes right, duty, and honour, that he judges of what is wrong only by the degree of punishment which it entails—such a soldier must be given a correct idea of the difference between right and wrong, and this knowledge must be instilled

into him by means of a kind but firm system. There are also some incorrigible individuals who sorely try the patience of their superiors, and on whose account it is to be regretted that corporal punishment has been abolished; but, thank Heaven, these are but rare exceptions; all the remainder accept gladly the instruction which is given them during their three years of service with the colours; while the conviction which they acquire, that their superiors are unwearying in their efforts for their mental and bodily good, attracts their confidence, and thus cements that bond of union which makes it appear impossible to the private soldier to do anything without his officer. It is quite right that in war, in battle, the soldier should be accustomed to see his officer go before him into danger. But there have been instances when the soldier could not endure that his officer should expose himself, and when he has entreated him to remain under cover, since he, the soldier, could carry out the whole business by himself. I could give you many such instances which occurred at the outposts before Paris; I even knew a case when the soldiers were exceedingly angry with a General because he placed himself in the foremost line at the beginning of the fight, and was one of the first in the ranks of the stormers. They said one to another that with them there was no need for Generals to place themselves in the foremost rank; they would do their duty without being driven to it by any such example; that that gray old officer with his white hair and beard had better stay in rear until the last of his troops came on; what would become of them all if he was shot at

the beginning of the action, and there was no one left to give the proper orders?

Each soldier takes it for granted that any such orders will be the best possible. No one ever heard any argument about this, or any fault-finding. Such orders as came were accepted simply as fate. "Such is the order," was always a magic word in our army. And even though half of the men fell in carrying it out, yet the other half executed it to the uttermost. This spirit enabled our Headquarter Staff to move the troops as if they were chessmen. It has never happened with us, though often with other armies, that the troops have failed to reach the point to which they had been ordered to march. It was ordered; therefore it was done. You might sometimes see a powerful N.C. officer carrying two rifles, so that some tired young soldier by his side might be able to complete the march; and officers were to be seen helping to carry the rifles of their men. The officers were, of course, a brilliant pattern to their men in the discharge of their duty. I have known young officers who, having been sent out after the day's march to carry some order, were on the road during the whole night, and came back on the following morning to the headquarters of the corps just as they were about to march off. They were so tired, that at every short halt during the march they fell asleep in broad daylight, slipping off their horses on to some stubble-field. But when their turn came round, and they were sent off again with an order, they at once became wide-awake and went off with their message. They never made any mistake. I could name to you a certain Staff which I by chance happened to

join just as it, in the evening after a very hard day, took possession of a deserted house. Their supplies had not come up, and not an atom of bread or meat could be found in the house—nothing but raw eggs and a great quantity of champagne. Hungry and thirsty as they were they fell upon what there was, and even the most temperate became utterly drunk. In the middle of the night there was an alarm, and orders came for a farther advance. These orders had to be worked out with the map, various directions had to be given, and the orderly officers had to ride off. They all became sober at once ; no mistake was made in the orders, no directions were incorrectly given, and nothing was forgotten or omitted. The word "Duty" has a magic effect ; it sobers, it animates, it electrifies.

But in order to keep up this spirit it is necessary that, as in our Army, the firmest discipline be preserved. Not such discipline as is founded on dread of very severe punishments, or even of the lash, but that discipline which has its basis in habit, which regards all orders as sacred, and which carries out even the smallest details with all possible care ; and, moreover, that strict discipline of drill which makes the most absolute correctness in each movement a matter of custom, which measures with a scale of tenths of an inch the exact distance between the pouch and the rifle when held at the "Present," and that often derided "gaiter-button" smartness, which is enraged when even one button of the tunic is left open. It is this which accustoms the soldier to obedience, and which must be especially impressed upon the infantry, since they will be, for the most part, broken up into the

very smallest fractions at the most decisive moments. Napoleon III. says at the end of his book, *The Causes of the Capitulation of Sedan*, that the Prussian successes were founded on respect for the government, obedience to the laws, and the fact that the military and patriotic spirit overmastered all interests and opinions; and a French officer, who in 1871 surrendered to us the fort of Issy, said when he saw an N.C. officer deliver a report in a very smart soldier-like manner: "Ah, je vois bien pourquoi nous sommes vaincus; c'est par votre discipline. Un de nos soldats, en faisant son rapport, vous aurait fourré sa main sous le nez."

On the other hand, the care which the officers take of their men, and the example which they set in bearing hardships, and in danger, bring about an attachment of the soldiers to their officers which shows itself in a thousand touching ways. Not only does the soldier stand by his officer in battle and in danger, but when the officer, tired to death, endeavours to get some rest, then the men, as far as they can, look after him as a loving mother looks after her child. Any Lieutenant of infantry could give you more examples of this fact than I, since in our campaigns I have been, owing to my employment, too much divided from the men. But I have myself experienced this kindness—after the battle of St. Privat, and on many other occasions.

But not only had the men a close affection for their superiors, but they had the greatest confidence in them, as was plainly shown during the last war; it was indeed so great that they not only felt sure that every order given was correct and necessary,

but were further convinced that victory was absolutely certain. This confidence showed itself even in the year 1870, when the *Landwehr* and the reservists rejoined the colours, and found comic expression in the words used by a man of the *Landwehr*, as he showed his mobilisation order to his wife: "Look! we have got to go and win some more victories." This confidence continued even during all the hardships of the entire war. When all the lines of march had to be changed, at the news of the movement of MacMahon on our right flank, and when the most extraordinary exertions were demanded of the men, so that thousands and thousands fell down exhausted on the road, there was never any complaint; the soldier took everything with a laugh. I heard a man say at that time: "Before the battle of the 18th we used to say, 'Change front by army corps!' Now we say, 'Change front by armies!' 'Forward! only let us get at them!'"

The spirit of our troops showed itself in the fact that they never considered themselves beaten. I once came across an infantry regiment immediately after an attack which had not been successful. You will excuse my not mentioning the name of the regiment or of the action, for I should not like to annoy brave men. The commander had led them for the first time under fire, and was, with his men, very downcast; above all, they were afraid of the blame of their superiors. One of the latter said to me: "Their wings are drooping a little; I'll make them hold their heads up." He then galloped to the regiment and shouted in a loud voice: "Bravo, Colonel! Bravo, Grenadiers! That was a grand deed! The regiment

went farther forward to the front than any. It was not your fault that the attack failed. This is a glorious day in the history of the regiment!" All their heads went up at once, and it was no longer a defeated regiment. It had only lost so many officers and men; the remainder fought again with their old courage, and very soon gave proof of their invincibility. Troops who will not own themselves beaten cannot be beaten. They may lose men, they may be reduced in number, they may even be annihilated; but they can never be beaten! If our infantry after their colossal losses at Vionville-Mars-la-Tour, which reduced them to half (some regiments even to a third) of their strength, had considered themselves beaten, we should have had no right to reproach them. But they never thought they were beaten, and therefore kept on attacking until dark. Thus it was that they were indeed victorious. This is the effect of the true soldier spirit.

This spirit which is the result of a discipline founded upon confidence and carefully preserved, showed itself long ago, in the days when the agitation of many minds, urged on by inward restlessness, endangered all which up to then had been held to be right and law, so that the very foundations of the organisation of society appeared to totter. Every one who was alive in the year 1848 will remember how it was the spirit of the army which saved the organisation of our society from ruin. Then was discipline of real value; that discipline which has no fear for itself, but holds that what is ordered must be carried out. A grenadier of the King's regiment was enticed away by some riotous agitators,

was made drunk with beer and brandy, and was called upon, under threat of death if he refused, to swear that he would not fire on the insurgents; he gave the required oath, but with the reservation: "This is how it is; if I get the order to fire, I must fire." And so felt the whole army.

Thus this spirit is our best defence against the destructive efforts of Socialism. So long as this spirit is, by means of the three years' training of each individual, rooted in the mind of every man who is able to bear arms; so long as the whole nation receives this training which bears more lasting fruit than all their previous education, so long will the foundations of the order of our country remain unshaken, let the rage of those who employ murder, fire, and dynamite as the means to their end do what it will.

But in order to attain this position it is necessary to train each man individually; which is exactly what our infantry have so capitally carried out. The mere drilling of the whole mass is no longer sufficient. This drill, in which men are only machines, did very good work, it is true, in the last century. But since "Independent fire has had it all its own way," and every man fights independently up to a certain point, the mechanical movement of closed bodies of troops can no longer be the goal of our efforts; it could not be given up in those days, when men deserted one by one if by any chance the camp was not surrounded with guards and sentries. In the same manner the lash would be useless against temptations by insurgents, if each individual soldier was liable to such temptations. Nothing but the

long continued education of the whole nation in war and discipline can do any good. The leaders of the revolutionary party know this well, and for this reason they, under all sorts of pretexts, press for a shorter term of service than three years, and for the conversion of the army into a militia.

Enthusiasm may lead a militia to do great deeds. But enthusiasm is but burning straw unless the true soldier spirit be present; it flares for a short time but goes out at once, as soon as it is chilled by the reality of war with its hardships and dangers. We had a good example of this in the second half of our last great war. The enthusiasm which Gambetta succeeded in arousing in the French nation called armies from the ground with the stamp of its foot, but they could not stand against the well-disciplined German troops, filled as these were with the true soldier spirit, even though the French were often in threefold strength.

To this true soldier spirit belongs also the spirit of the offensive which our General Staff accepted as the principle for the conduct of the whole war, and which was soon acknowledged by every man to be right.

It has certainly been said that the offensive is the form of action of the strongest, but that the defensive is the strongest form of action. It is besides apparently certain that he who, as he lies under cover, fires upon his assailant, will gain the victory more easily than he who is compelled to advance under the well-aimed fire of the defender. But the offensive enables the assailant to bring a numerical superiority to the point where he desires to possess it, and he

who assumes the offensive can surprise, while he who falls back on the defensive can only be surprised. But surprise itself doubles the strength of the force which surprises. And the moral impulse peculiar to the offensive has even more effect than surprise. He who goes forward to the attack feels that he is the better man; he who holds back on the defensive knows that he is weak. This feeling of superiority on the one hand, and of weakness on the other, extends through every man in the army. The defender is day by day sorely troubled, and asks: "Will the enemy come this way: or will he come that way?" he thus lessens the courage of his troops, as well as their bodily strength. For he must always keep them in complete readiness for battle, while the assailant can rest and take his ease up to the moment which he has selected for the attack. Thus the defenders of the Dannewerk, in the year 1864, kept their troops under arms within their fortifications, day and night, through frost and snow, while we quietly lay in villages close in front of the walls of the Dannewerk, until their troops had been broken by their hardships and sufferings to such an extent, that it was found advisable to abandon the fortress without a struggle. In the same manner the French armies bivouacked, before the sorties, in order of battle between the forts of Paris, and lost hundreds of men by frost; while our troops lay at night in the villages, cooking, eating, and sleeping, and held their position during the day only.

But whither am I wandering! I meant only to write to you about practical matters concerning the infantry, and now I am losing myself in an abstract

comparison between the offensive and the defensive. I see that it is time for me to come to an end, and I will only beg of you to forgive my digression. The drill regulations for the infantry say, on page 191, that it is important to arouse and to keep up the offensive spirit of the infantry; and this fact must suffice for my excuse.

INDEX

ALSACE, manœuvres in, 248.
Amanvillers, 71, 132, 171, 250.
Ammunition cannot be supplied at the final rush, 156, 174.
  carts, neglect of, in peace manœuvres, 177, 178.
  infantry, in 1866, 170.
  in 1870-71, 171, 172.
  renewal of, 158, 167, 168, 169, 170, 174, 175, 176, 177, 178, 179, 180, 181.
Argenteuil, 23.
Army and Navy Annual, 138.
Artillery, distance of, from its own infantry, 149, 152.
  fire, why it varies in action, 144.
  comparison with infantry, 142, 153.
  under infantry fire, 148, 149.
  why it may come within infantry fire, 149.
Attack on village, ideal, 138, 139.
Austrians, in 1866, destruction of, 47.

BATILLY, 179.
Battalion, commanding officer's place in a, 242.
  difficulty of training a, 112.
  inspection of a, 111.
  march-past, 197.
Battalion exercises, 96.
  inspection of, 112, 113, 115.
  position of officer in, 100, 101, 102, 103, 104, 105.
  too rigid in peace, 97, 105, 109.
Battle, a, highest form of inspection, 106.
  and drill exercises, differences between, 165, 206.
  noise of, not always heard, 247.
  plan reports, 191, 192, 194.
Battles, position of officers in, 106, 107, 108, 109, 110.
Bayonet drill, 33, 35, 36.
  fighting, 35, 36, 37.
Bazaine's *Episodes*, 1.
  lack of ammunition, 171, 172.
Beaugency-Cravant, battle of, 138.
Beaune la Rolande, 156, 159.
Benedek, Colonel, 218, 220.
Berlin, 24, 256.
Bois de la Garenne, 44, 45, 133, 134, 150.
Brigade, commanding officer's place in a, 237, 238, 239, 240, 241, 242, 243.
  exercises, 201, 202, 203, 204, 210, 211, 212, 213, 214, 216.
  how to assemble battalions of a, 224, 225, 226, 228, 229.
  how to march from a rendezvous, 227, 228.
  internal arrangements, 221, 222.
  rendezvous, 222, 223, 224.
  tactical handling of, 237.
Brigades should be exercised with their artillery, 202, 203, 204, 205, 207, 209, 210, 211.
Bronsart's *Duties of the General Staff*, 221.
Budritzky, General von, 52.

CAMPS, French system of, 124, 125.
Captains, duties of, 87, 88.
Cavalry, supported by infantry, 253, 254, 255.
Châlons, 2, 172.
Chanzy, 3.
Chlum, 71, 75.
Clausewitz's opinion of war, 79, 118, 222.
Colombey-Nouilly, 1.
"Column on the centre," 48, 50.
Columns, battalion, 97, 100.
former and present use of, 48, 49, 50.
Company, training a, 112.
exercises, 68.
instruction, best, 73.
Crimean War, the, 244.

DAIGNY, 133.
Daum, Lieutenant, 254.
Des Barres' battalion, 64.
Deutschmühle, 244.
Drahtzug, 244, 249.
Drill, company and battalion, 68, 69.
flank attack at, 128, 129.
flank movements at, 116, 117.
recruits, 18, 19, 20.
Dugny, 135.
Düppel, fight at, 36, 82.

EGYPTIAN soldiers, 70.
Enemy at drill exercise should be marked by flags, 200, 202.
Esbeck, Lieutenant von, 207.

FIREARMS, loading of, 33, 34.
Fire discipline, 74, 75, 76, 77, 78, 172, 173, 174.
Flank attacks, 217, 218, 219, 220, 243, 244, 245, 246, 247, 248, 249, 250.
fire, value of, 71, 72, 73.
Flavigny, 192.
Formation, advantage of three ranks, 62, 63, 64.
square, seldom used, 64.
Formations, peace and war, 59, 60, 61.
François, General von, 241, 246, 264.
Frederic the Great, 22, 48.
Charles, Prince, 3, 6, 36, 241.
Fridericia, battle of, 155.
Frörup, 220, 243.
Fröschweiler, storming of, 1.

GAMBETTA, 273.
Geissberg, storming of the, 1.
German drilling, 23.
officers, good character of, 93, 94.
officers, small pay of, 90, 91, 92.
Gifert forest, 216, 249.
Gitschin, battle, 255, 256.
Givonne, river, 44.
valley, 44, 45, 134.
village, 44, 133.
Goltz's *The People in Arms*, 26, 35, 52, 94.
Gondrecourt's Austrian brigade, 217.
Gravelotte, battle of, Guards at, 50, 192.
Gymnastics, applied, 29, 30, 31, 37, 38.
inspectors of, 32, 33.
necessity of, for recruits, 14, 15, 16, 17, 33, 35.

HALTS, how to arrange, 231, 232, 235.
Haybes, 45.
Horenowes, 153.

INDIVIDUAL firing, advantage of, 47.
Infantry, Austrian, 36, 37.
boots of the, 235, 236.
German, 1, 2.
German compared with French, 4, 7.
German, in the provinces, 24.
how to form in attacking a village, 139.
importance of captains in, 81, 82, 83, 84, 87, 88.
importance of lieutenants in, 83, 84.
improvement of German, 5.
invincible against a frontal attack, 133.

Infantry, loss of officers in the, 164.
losses of German, 5, 6.
must not mask their own artillery, 207, 208.
necessity of discipline of, 10, 19, 69, 70, 106.
of the Guard, 14, 16.
order of, in attacking a village, 151, 152, 156, 157.
Prussian, in 1866, 47.
reason of success of German, 19, 20, 23, 44, 49, 95.
should ask their artillery the range in passing, 153, 161, 209.
should not fire too soon, 156, 172, 174.
true soldier spirit of, 261, 262, 263, 264, 265, 266, 267, 268, 269, 270, 271, 272, 273, 275.
Infantry and artillery, real effect compared of, 141, 142, 143.
against cavalry, 255, 256, 257, 258.
attack supported by artillery, 145, 146, 147, 149, 150, 151, 152, 153.
attack unsupported by artillery, 166, 167, 168, 169.
colonel's duties, 183, 184, 185, 186, 187, 188, 191.
columns, cause of loss of, 50.
fire, difficulty of getting range of, 141, 142, 152, 153, 154.
fire, range of effective, 143, 144, 145, 146.
fire tested against artillery fire at same targets, 142, 143.
fire, why it varies in action, 143.
fire, zone of, 86.
officers, efficiency of, 264, 265, 267, 269.
regiments of three battalions, advantage of, 194, 195.
Inspection, battalion problems given at, 121, 122.
of battalions, 111.
"fever," 126.
working up for, 105, 106.
Intervals in line of march, necessity of, 229, 230, 233.

JAGEL, village, 218, 220.
Jericek, 153.

KNAPPSTÄDTS' brigade, 201.
Königgrätz, battle of, 71, 144, 153, 220, 254, 255.
Königsberg, hill, 218.
Kraft, Prince, his *Letters on Cavalry*, 238, 239, 255.
his inspection of battalion exercises, 118, 119, 120, 121, 122, 123, 125.
his method of marching to the drill ground, 80.
his system of battalion inspection, 118, 119, 120, 121, 122, 123, 125.
his war experience, 9.

LADMIRAULT, General, 171.
Langenhof, 254.
Langensalza, 64.
Le Blanc Mesnil, 135.
Le Bourget, storming of, 38, 52, 53, 134, 135, 136, 137, 142, 163, 164, 167, 168, 193.
Le Mans, battle of, 6.
Level ground, attack over, 141, 145, 146, 151, 154, 155, 156, 157, 159, 163, 164, 165, 166, 167, 168, 169, 174.
Lieutenants, duties of, 84, 85, 86, 87.
Lisaine, river, 52.
Longchamp, 59.
Long-range weapons, 53.

MACMAHON, General, 2, 270.
Marching, rules for the road in, 230, 231.
drill, 43.
step, 27, 28.
Mass-attack at Givonne, French, 45, 46, 47.
Memel, river, 261.
Metz, 250, 262.
Montmédy, 149, 208.
Murat, 263.

NAPOLEON I., 4, 34.
III., 1, 269.

Nedelitz, 71, 75.
Nübel, 153.

Ober-Selk, 218.
Oeversee, 218, 243.
Offensive and defensive action, 273, 274, 275.
Oldenburg, Lieutenant, 254.
Open ground, advance over, 114, 129, 130, 131, 133, 135, 136, 137, 139.
attack over, 141, 145, 146, 151, 154, 155, 156, 157, 159, 163, 164, 165, 166, 167, 168, 169, 174.
Open order, fighting in, 43, 44.

Pannwitz, Colonel von, 246.
Pape, General von, 134.
Parade movements, 203, 204.
Paris, siege of, 2, 23, 82, 247, 250, 266, 274.
Pfaffen forest, 249.
Pont-Iblon, 135.
Pont-à-Mousson, 241.
Powder, why its force varies, 142, 154.

Raven, General von, 264.
Recruits, field exercise of, 39, 40, 41.
firing drill, 41, 42.
German, 20, 21, 22.
individual training of, 26, 27, 29, 30, 38, 43.
Polish, 26.
Silesian, 27.
Regimental exercises, 198, 199.
Regiment, commanding officer's place in a, 242.
Regiments in lines, fighting by, 215, 216, 217.
by wings, formation of, 215, 216.
Regulations changes in, 53, 55.
how carried out, 97, 98, 99, 100.
points of doubt in, 56, 57, 58, 59, 67.
Repperts Berg, hill, 244.
Rhine, river, 261.
Rifles, handling, 73, 74.
Roncourt, 132.
Roon, Lieutenant von, 206.
Rothe-Berg, storming of the, 1, 241, 246, 248, 249, 264.
Rüchel, General von, 83.
Rushes, advance by, 158, 161, 162, 163, 164, 165, 166, 168, 253.

Sadowa, 257.
St. Cloud, 23.
St. Denis, 23.
St. Hubert, farm, 192.
St. Privat, storming of, 2, 5, 7, 72, 102, 130, 131, 132, 133, 134, 148, 171, 176, 177, 179, 190, 192, 201, 207, 208, 220, 241, 269.
cause of loss at, 51, 71.
losses of German infantry of the Guards at, 134.
Ste. Marie, fight at, 51, 52, 131.
Satrup, 206.
Scherbening, Colonel, 176.
Scherf's theory of the command of troops, 221.
Schleswig, fight at, 217.
Schreckenstein, General von, 245.
Sebastopol, 4.
Sedan, 1, 2, 5, 44, 47, 133, 150, 159, 172, 208, 255, 256, 257.
Seine, river, 23.
Shells bursting in bore, cause of, 208.
Shelter-trenches in manœuvres, 251, 252, 253.
Shouldering arms, disadvantage of, 64, 65, 67.
Skirmishers, orders to, 206, 207.
when to rush, 162, 163.
Skirmishing line, how to reinforce, 97, 98.
Solferino, 4.
Spicheren, battle, 1, 177, 216, 244, 246, 248, 264.
Square, objection against forming, 258.
Stiring forest, 216, 249.
Stocken, the originator of military gymnastics, 31.
Stresetitz, 254
Suakim, 70, 258, 259.

Sunstroke, effect of, 232, 233, 234.
how to avoid, 233, 234.
Swarm volleys, 159, 160, 172.

Tief-Weiher, 249.
Traditions, abuse of, 10, 11.
Treene ravine, 220, 244.
Tresckow, General von, 138.
Tronville, 191, 194, 195.
Trotinka, river, 153.
"Turk" manœuvre, 71 113, 114, 115.

Valmy, 176.
Versailles, 23.
Villejouan, 138, 155, 156, 164, 174, 175.
Vinoy, General, 2.
Vionville-Mars-la-Tour, 2, 6, 52, 191, 192, 194, 195, 234, 241, 257, 271.

Wagram, battle, 219.
War, enthusiasm in, 261, 262, 273.
how experience is gained in, 109, regulations for exigencies of, 115.
the habit of, 7, 8.
Weissenburg, 1.
Werder's army, small loss of, 52.
Wimpffen, General, 45.
Winkelried, Arnold von, 48.
Wörth, battle, 1, 177, 255.
"Woylach" alarm, 248.

THE END

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